Overview of the results of the household CHR02 Couple, 30 - 64 age, with work 0

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

Energy Intensity: EnergySaving

Seed 3718

LoadProfileGenerator 5.8.0.16019

by Noah Pflugradt

http://www.loadprofilegenerator.de

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Totals

Totals for each Loadtype

Load Type	Value	Unit
Cold Water	29172.73	L
Electricity	1706.07	kWh
Warm Water	80275.00	L

Totals for each Loadtype per Day

Load Type	Value	Unit
Cold Water	79.71	L
Electricity	4.66	kWh
Warm Water	219.33	L

Minimum and Maximum for each Loadtype

Household	Minimum	Maximum	Unit
Cold Water	0.00	21.34	L/Min
Electricity	0.16	6607.32	Watt
Warm Water	0.00	17.50	L/Min

Totals for each Loadtype per Person

Load Type	Value	Unit
Cold Water	14586.37	L
Electricity	853.03	kWh

Warm Water	40137.50	L

Totals for each Loadtype per Person per Day

Load Type	Value	Unit
Cold Water	39.85	L
Electricity	2.33	kWh
Warm Water	109.67	L

Persons

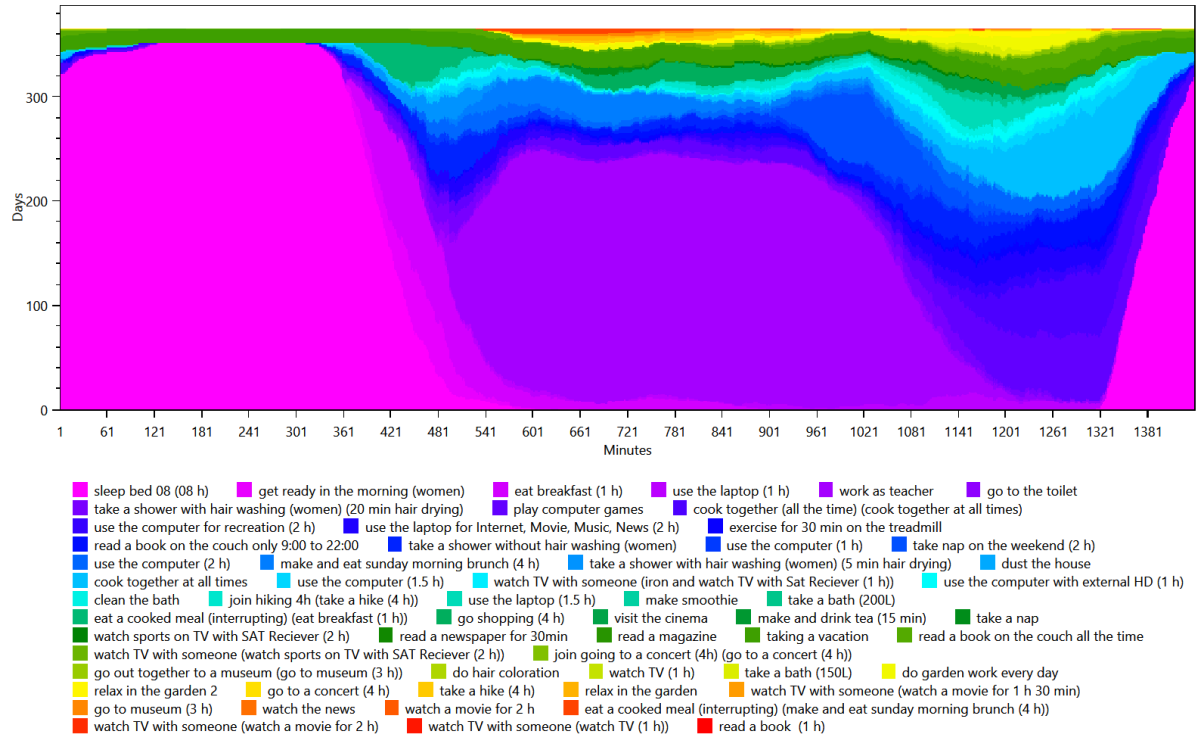
- HH0
    - CHR02 Katee (37/Female)(37/Female)
    - CHR02 Tomi (38/Male)(38/Male)

Activity Frequency Charts

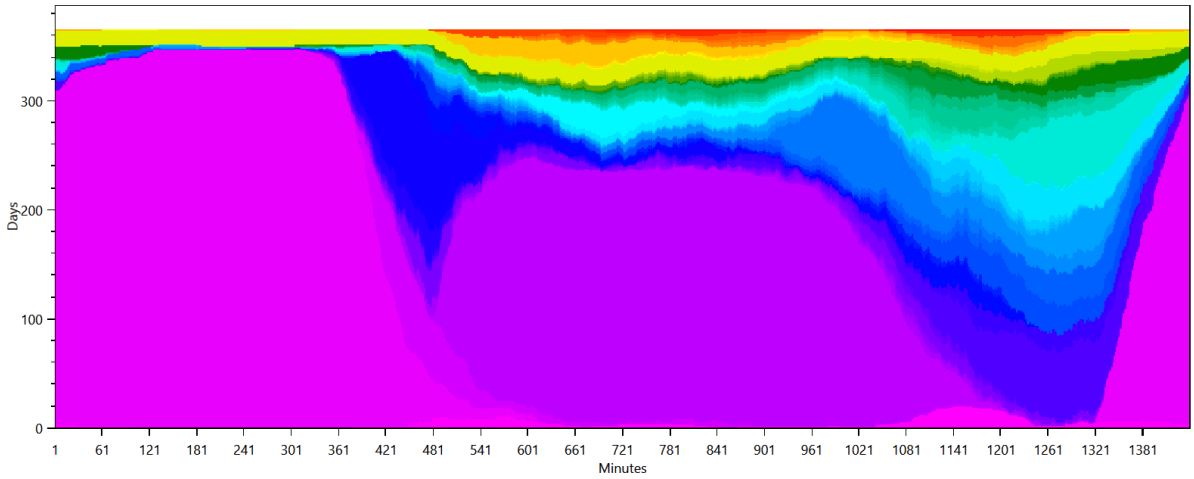
This is made from the files starting with: ActivityFrequenciesPerMinute

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 - CHR02 Katee (37 Female)



HH0 - CHR02 Tomi (38 Male)



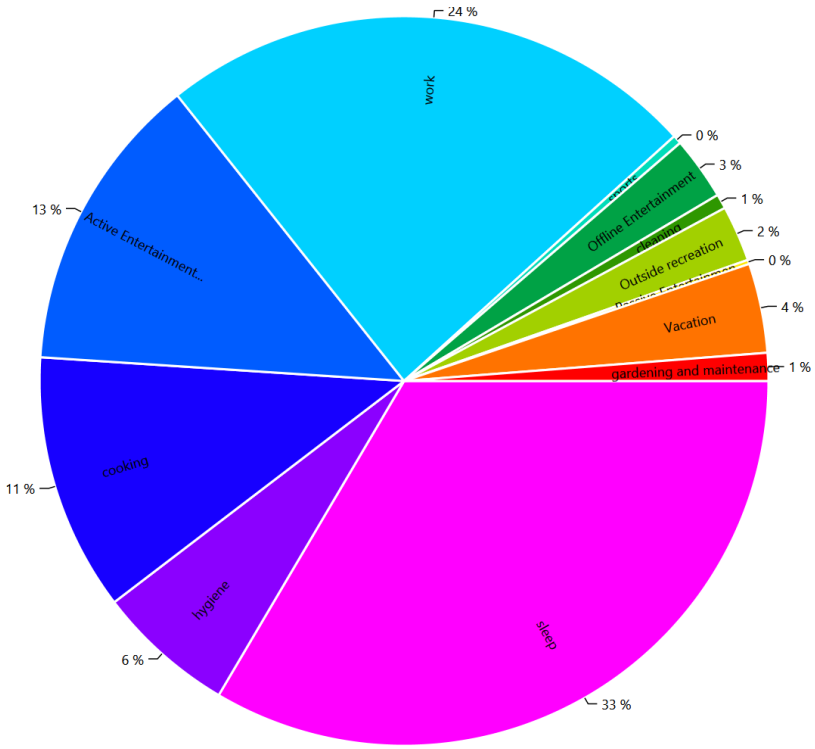
use the computer for recreation (2 h) sleep bed 02 (08 h) eat a cooked meal (interrupting) (eat breakfast (1 h)) work at the office from 8:00 (9 h)
go to the toilet run the dishwasher (triggered) take a shower (men) do laundry at 30°C (by variable) cook together at all times
use the laptop (1 h) get ready in the morning (men) eat breakfast (1 h) go shopping for food in the supermarket (1.5 h)
run the dryer with wet laundry (by variable) cook coffee use the laptop for Internet, Movie, Music, News (2 h) read a book on the couch all the time
take nap on the weekend (2 h) use the laptop (1.5 h) play Playstation use the computer (1 h) use the computer with external HD (1 h)
read a book on the couch only 9:00 to 22:00 eat a cooked meal (interrupting) (make and eat sunday morning brunch (4 h)) make smoothie
cook together (all the time) (cook together at all times) practice Tuba iron and watch TV with Sat Reciever (1 h) use the computer (2 h) bake bread
take a hike (4 h) do laundry at 60°C (by variable) use the computer (1.5 h) iron Clothes bake a cake go to a bar (4 h)
make and drink tea (15 min) watch a movie for 1 h 30 min read a newspaper for 30min take a nap watch the news read a magazine
watch TV (1 h) visit the cinema vacuum the household taking a vacation read a book (1 h) watch sports on TV with SAT Reciever (2 h)
watch a movie for 2 h make and eat sunday morning brunch (4 h) go to a concert (4 h) clean the windows go to museum (3 h)
relax in the garden join hiking 4h (take a hike (4 h)) mow the lawn on saturday above 15°C relax in the garden 2
go out together to a museum (go to museum (3 h)) join going to a concert (4h) (go to a concert (4 h))

Activity Distribution per Person

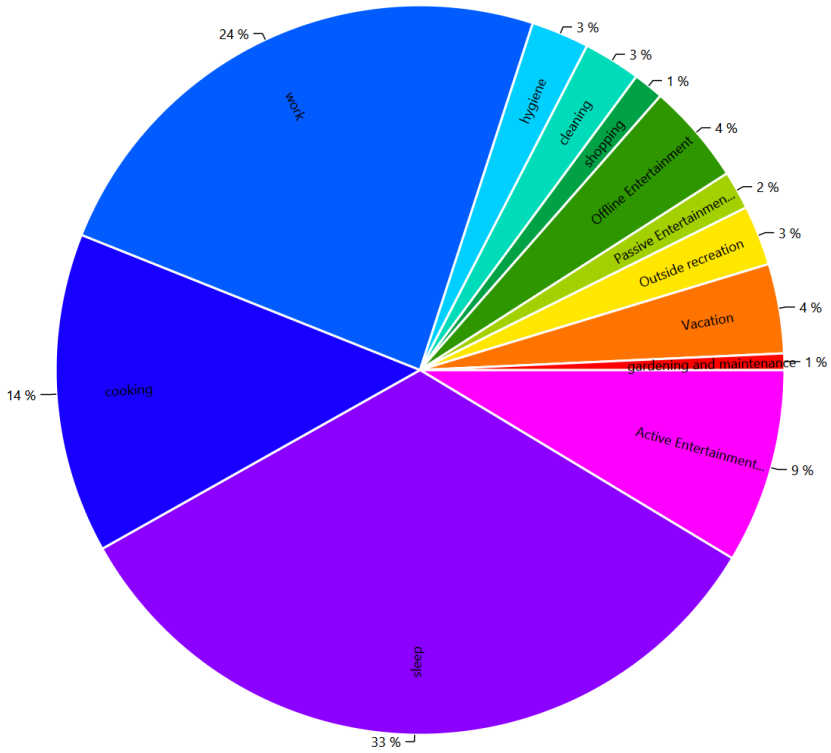
This is made from the files starting with: ActivityPercentage

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

HH0 - CHR02 Katee (37 Female)



HH0 - CHR02 Tomi (38 Male)

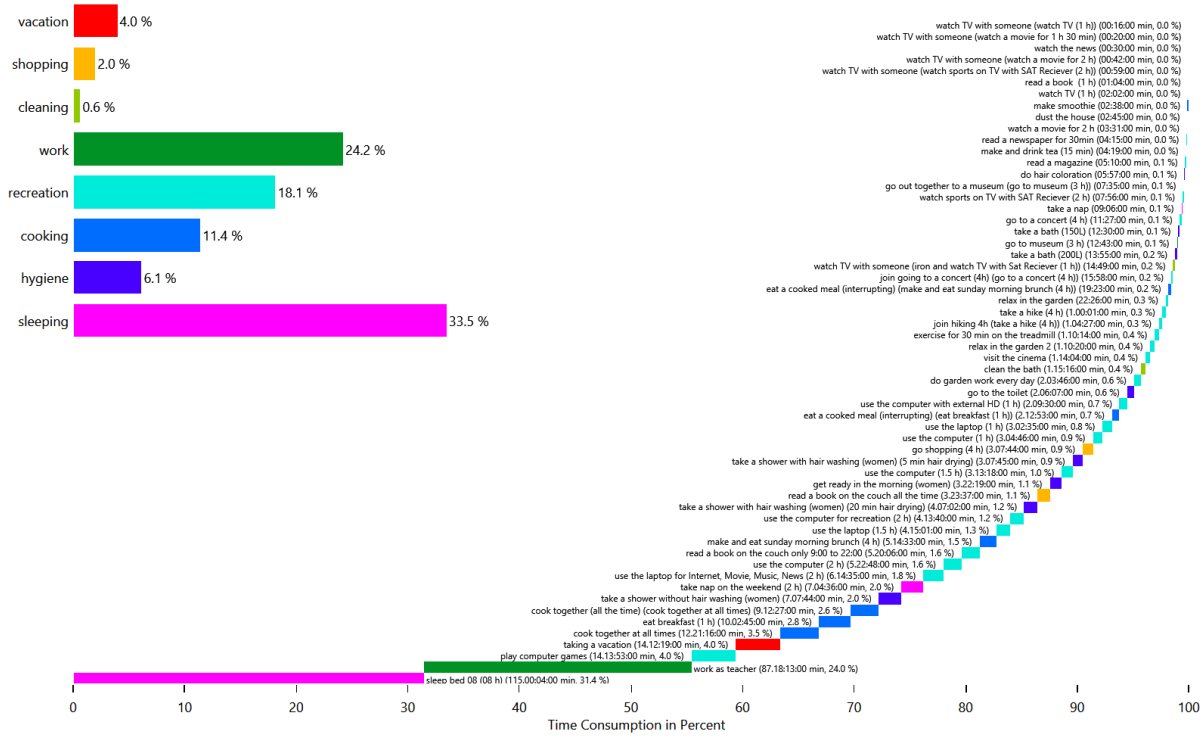


Time Use per Person per Affordance Per Person

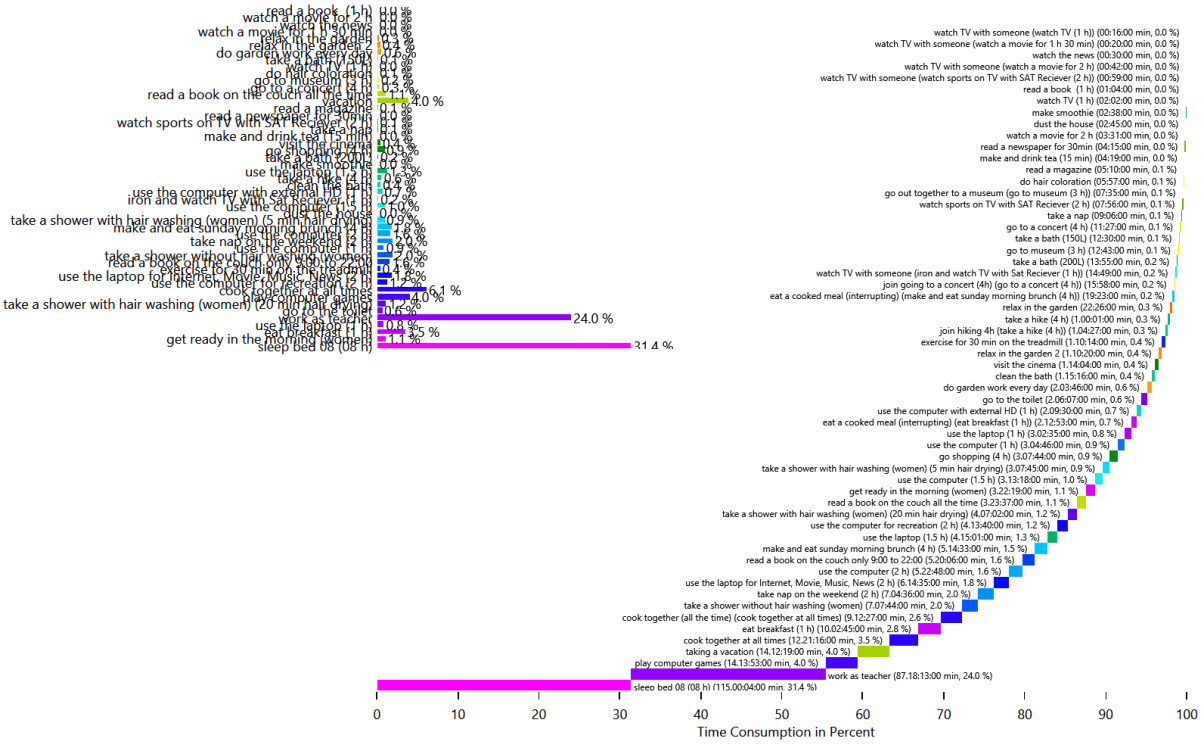
This is made from the files starting with: AffordanceTimeUse

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.

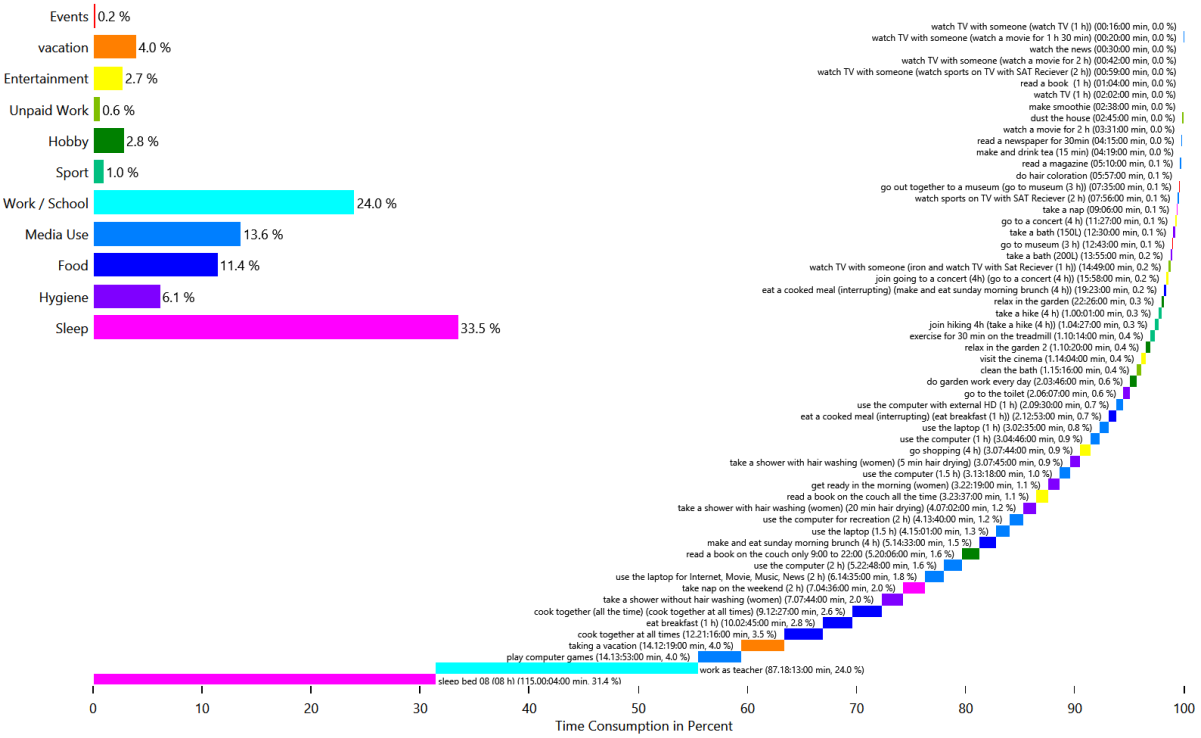
HH0 - CHR02 Katee (37 Female)



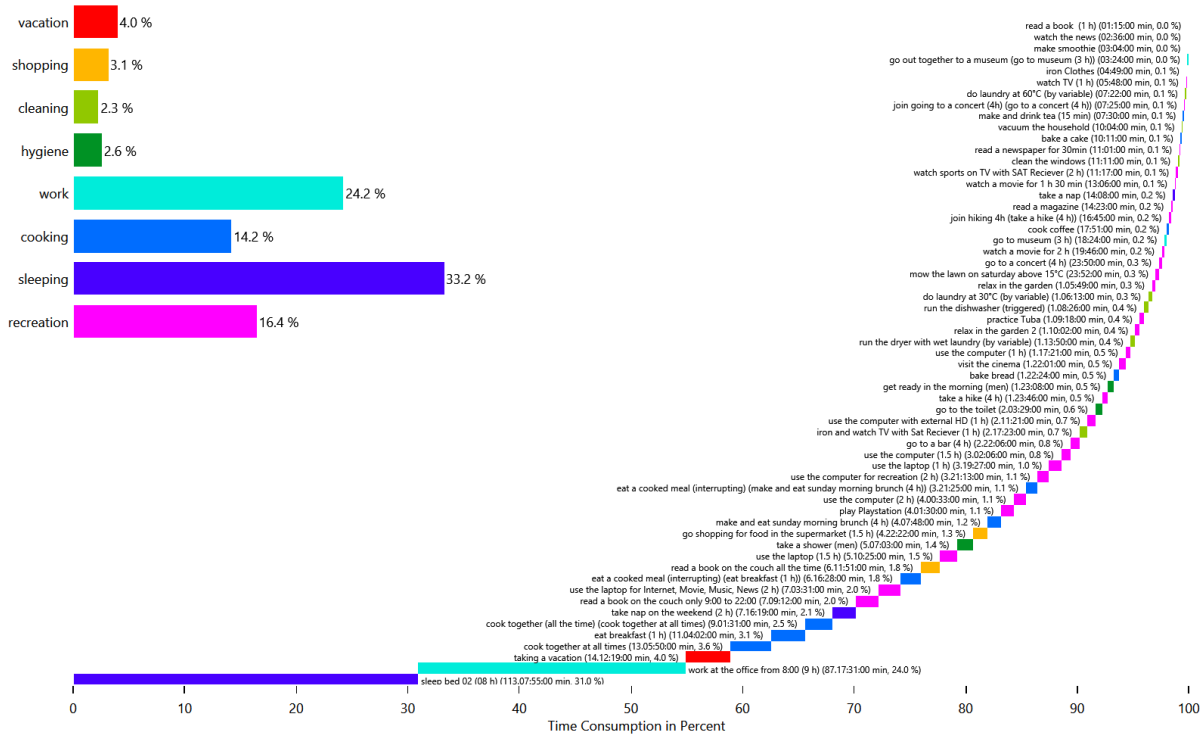
HH0 - CHR02 Katee (37 Female)



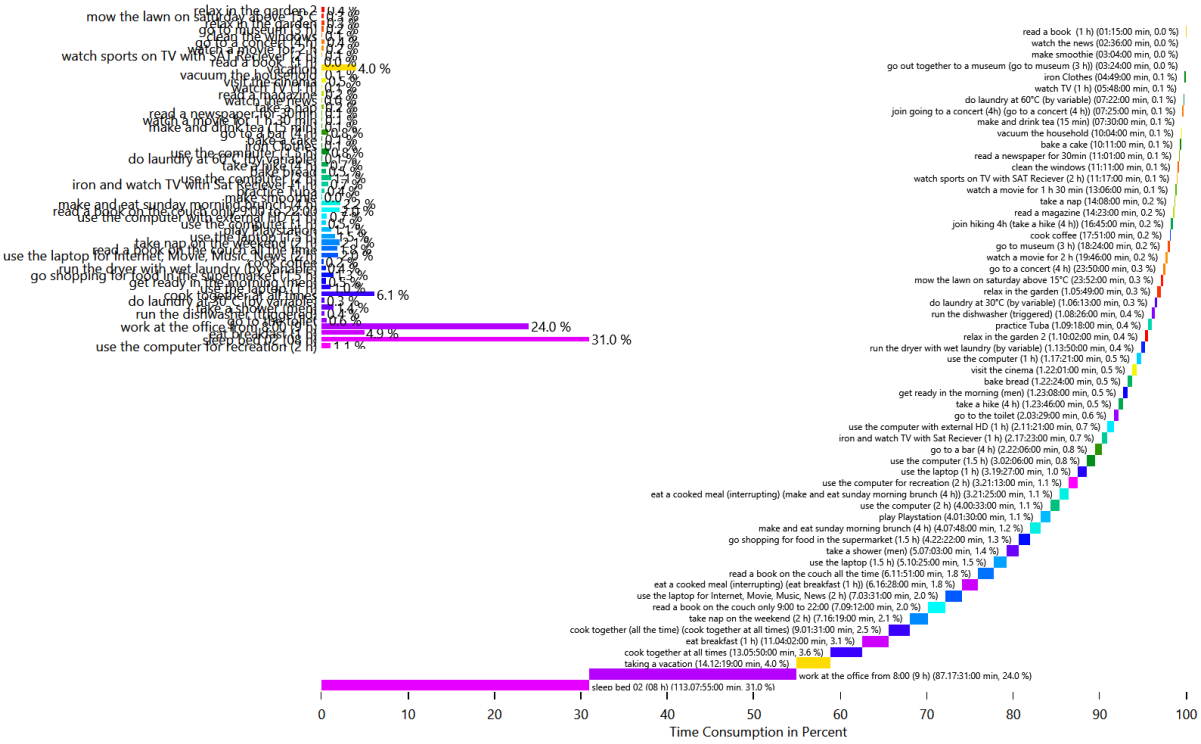
HH0 - CHR02 Katee (37 Female)



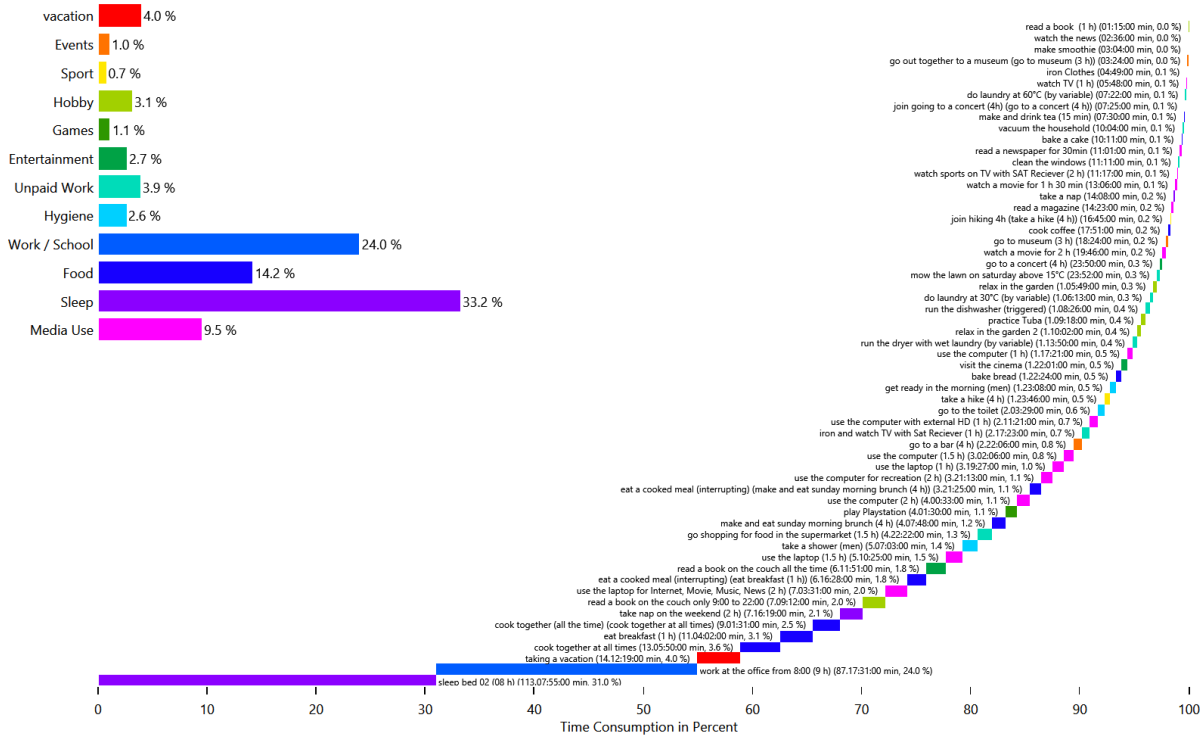
HH0 - CHR02 Tomi (38 Male)



HH0 - CHR02 Tomi (38 Male)



HH0 - CHR02 Tomi (38 Male)

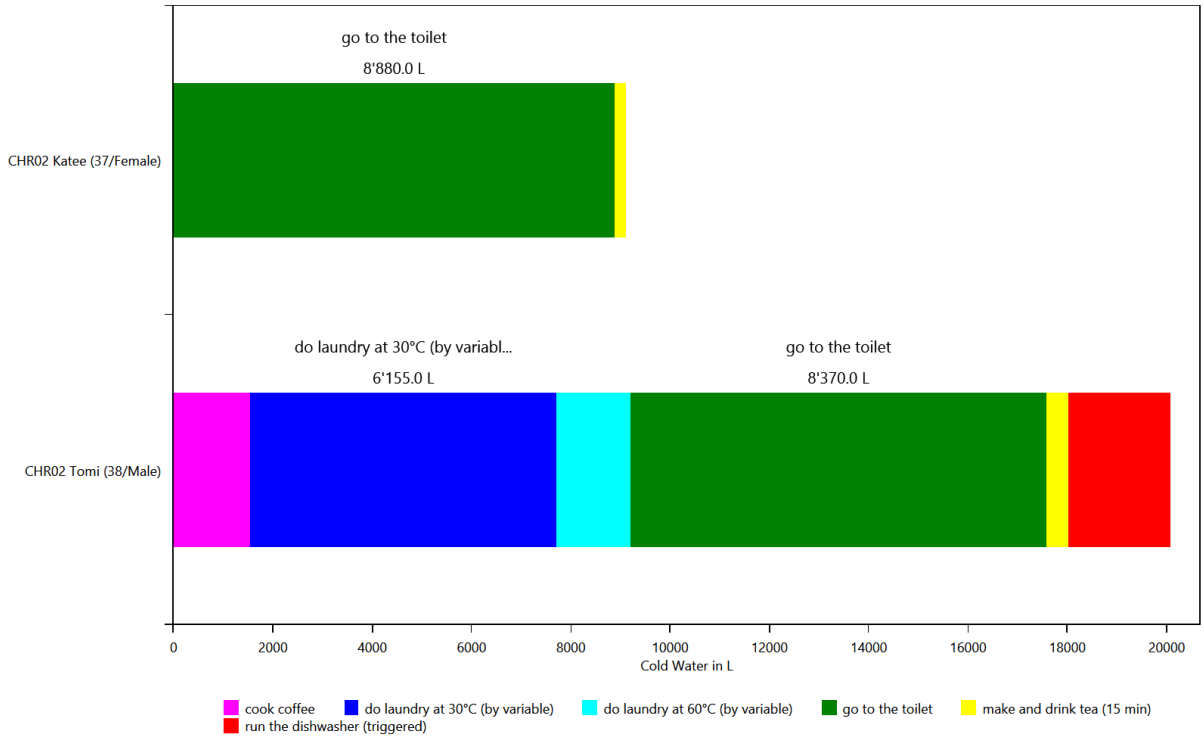


Energy use per person per affordance

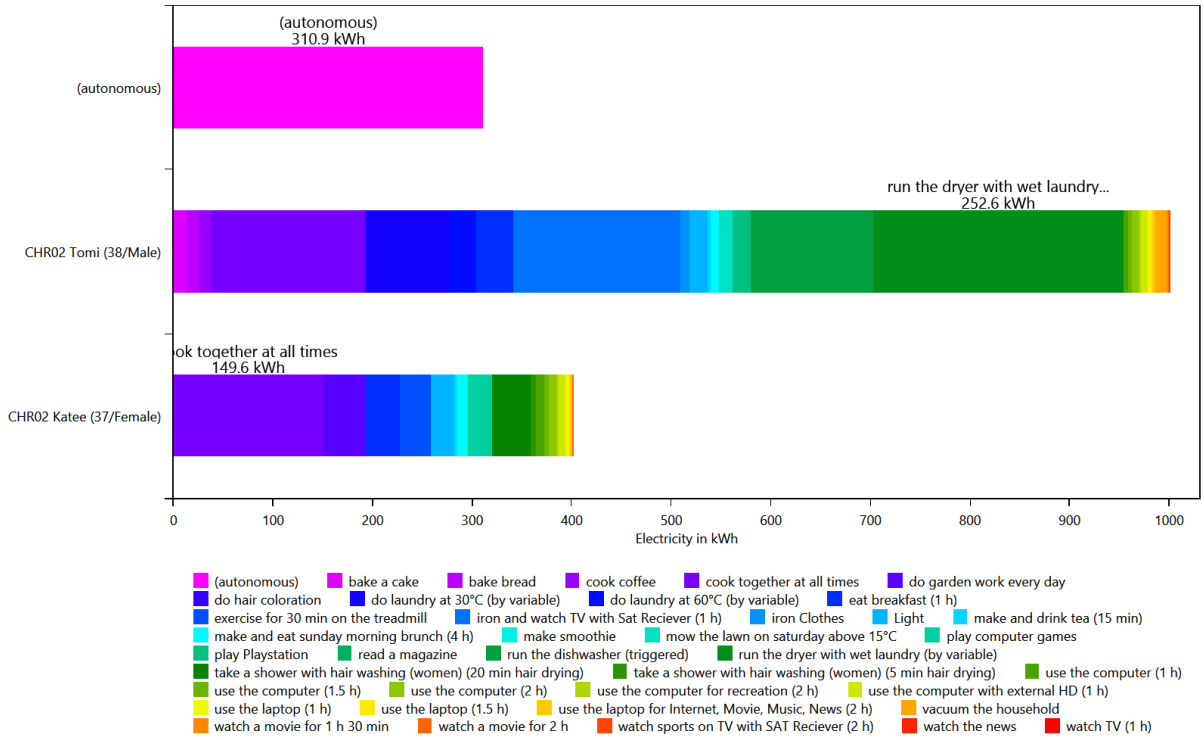
This is made from the files starting with: AffordanceEnergyUsePerPerson

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.

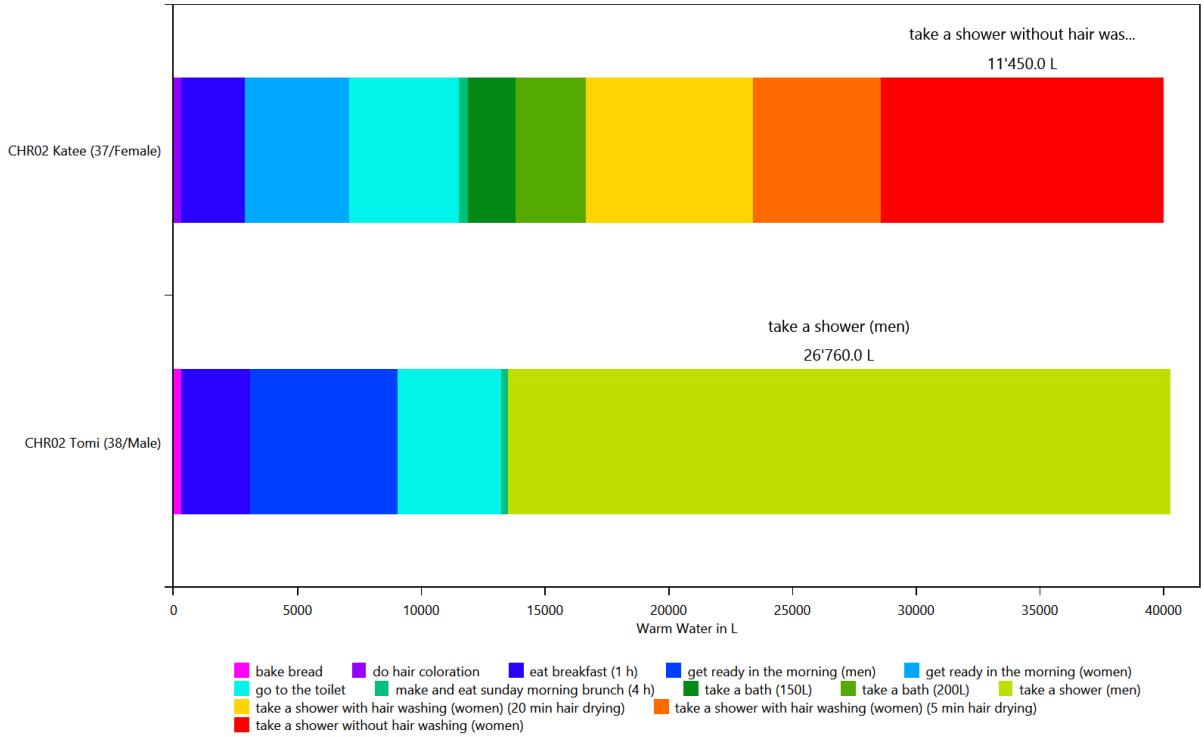
HH0 - Cold Water



HH0 - Electricity



HH0 - Warm Water

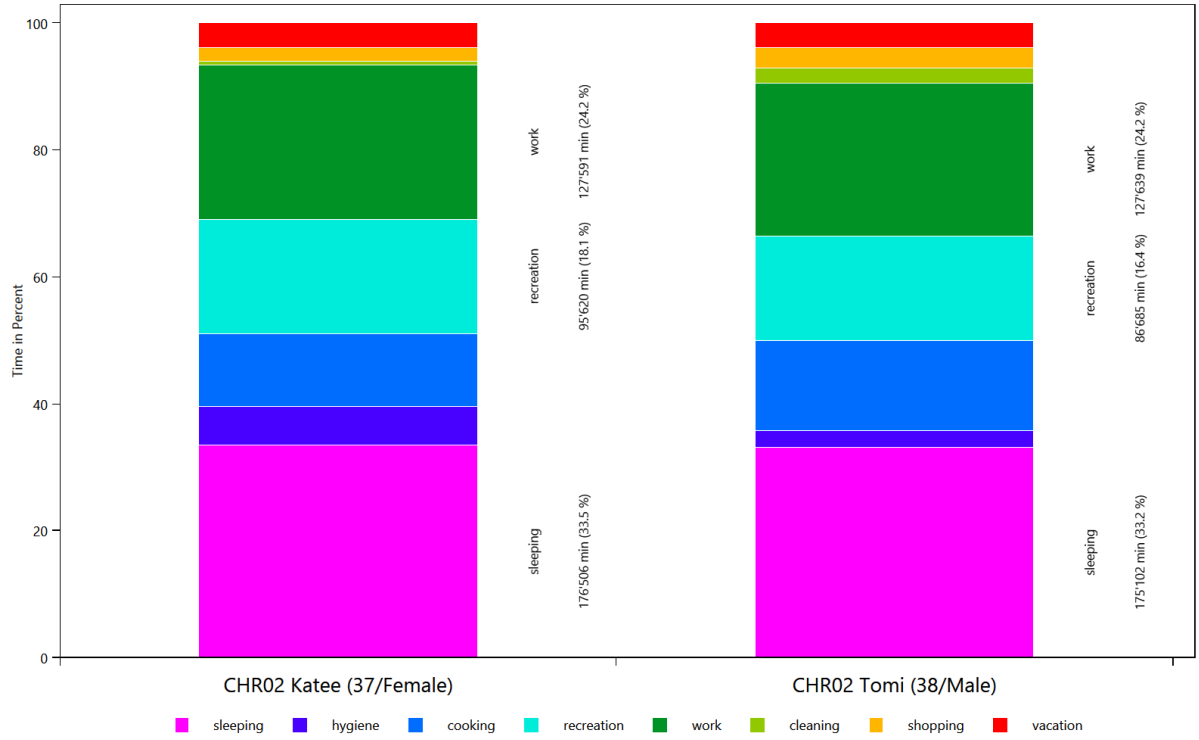


Time Use per Person Per Affordance according to different category definitions

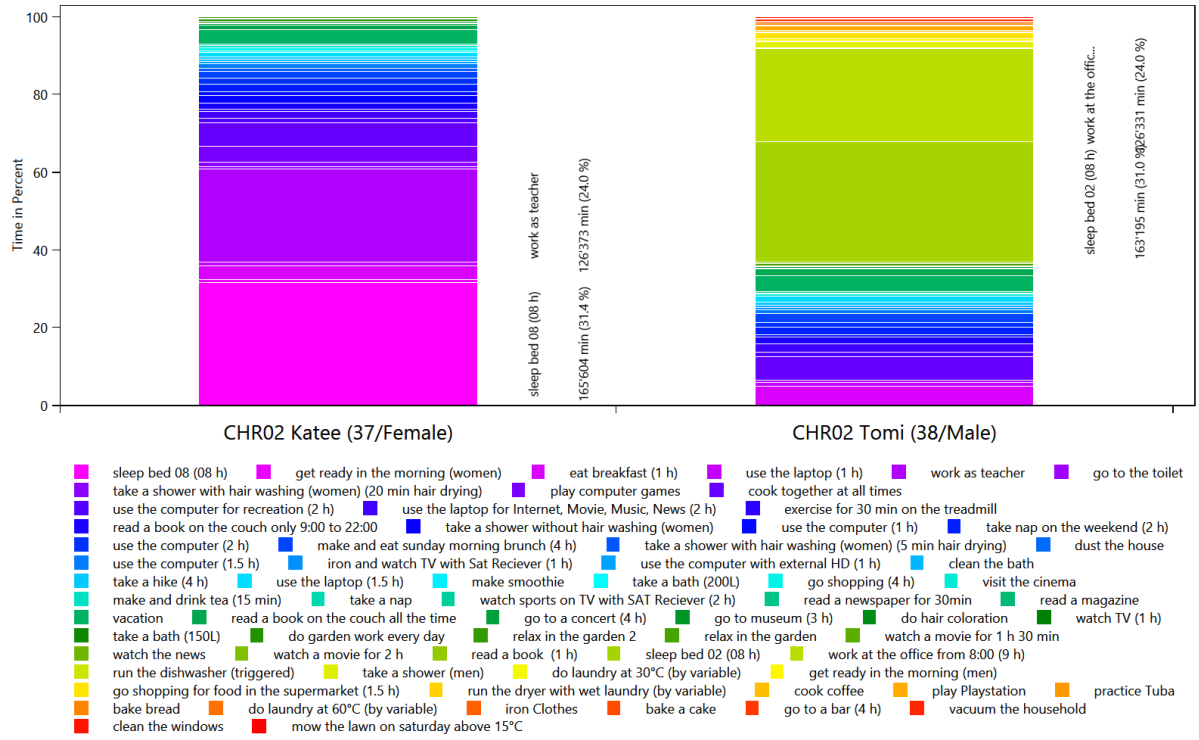
This is made from the files starting with: AffordanceTaggingSet

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.

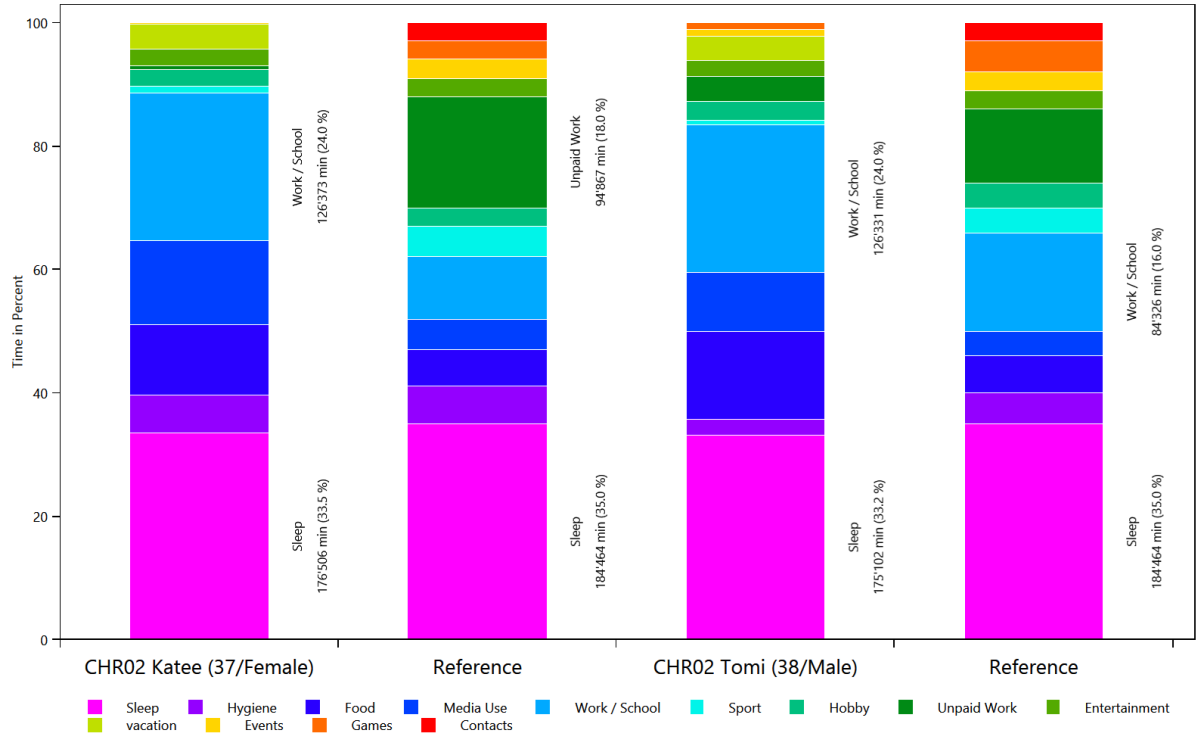
Basic Tagging - HH0



Tagging Set For Planning - HH0



Wo bleibt die Zeit - HH0

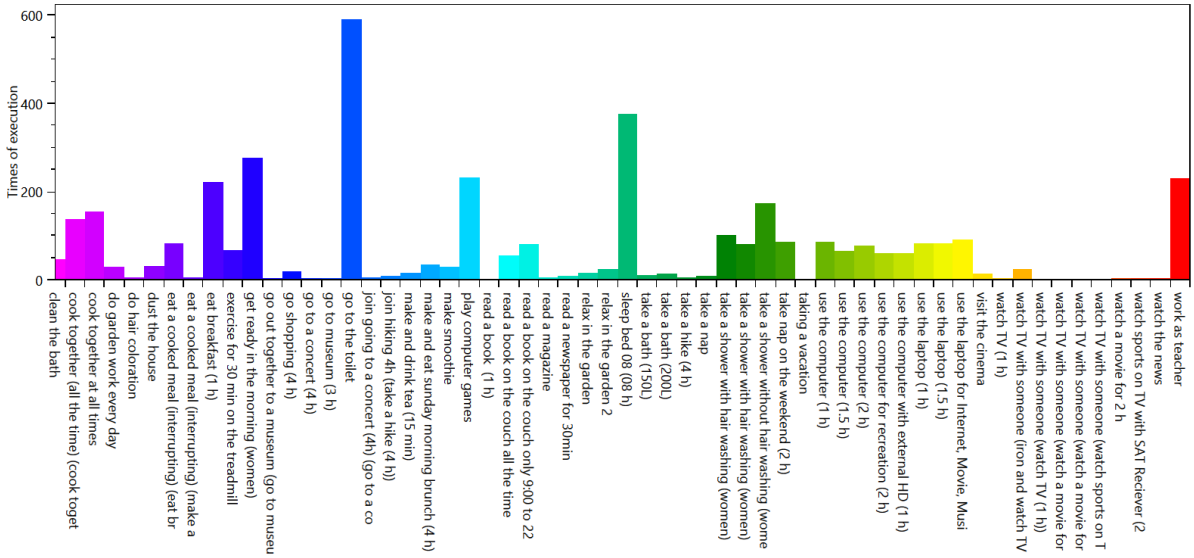


Overview of the actions of each member of the household

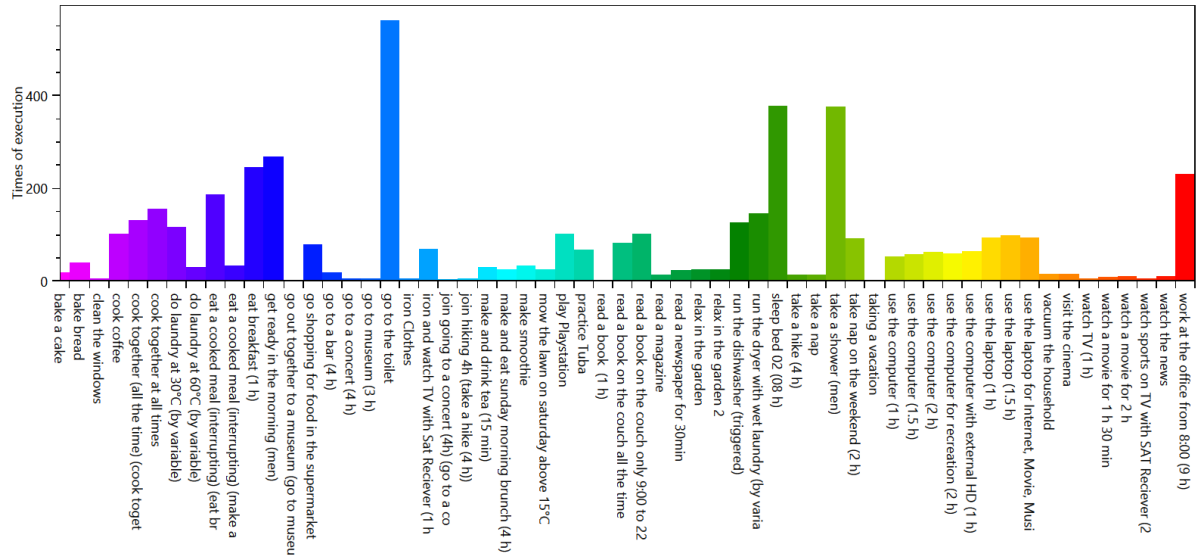
This is made from the files starting with: ExecutedActionsOverviewCount

These charts show how often each affordance was executed.

HH0 - CHR02 Katee (37 Female)



HH0 - CHR02 Tomi (38 Male)

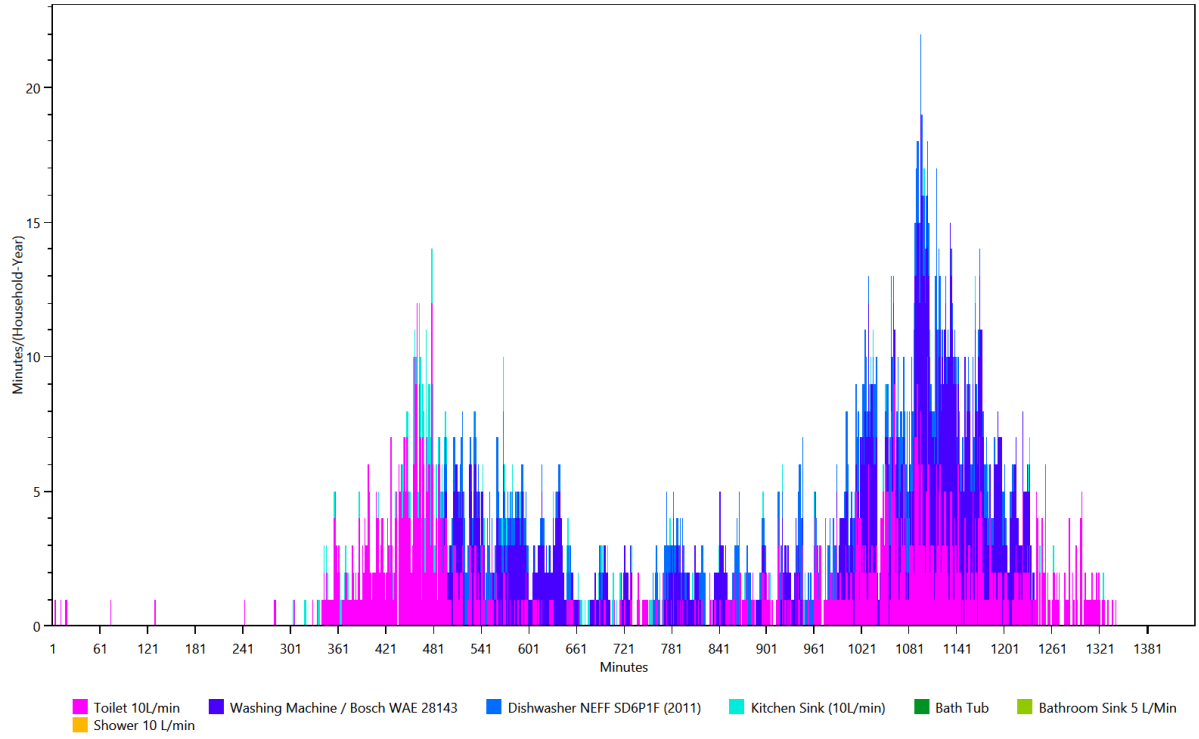


Overview of the time of the use per load type per device

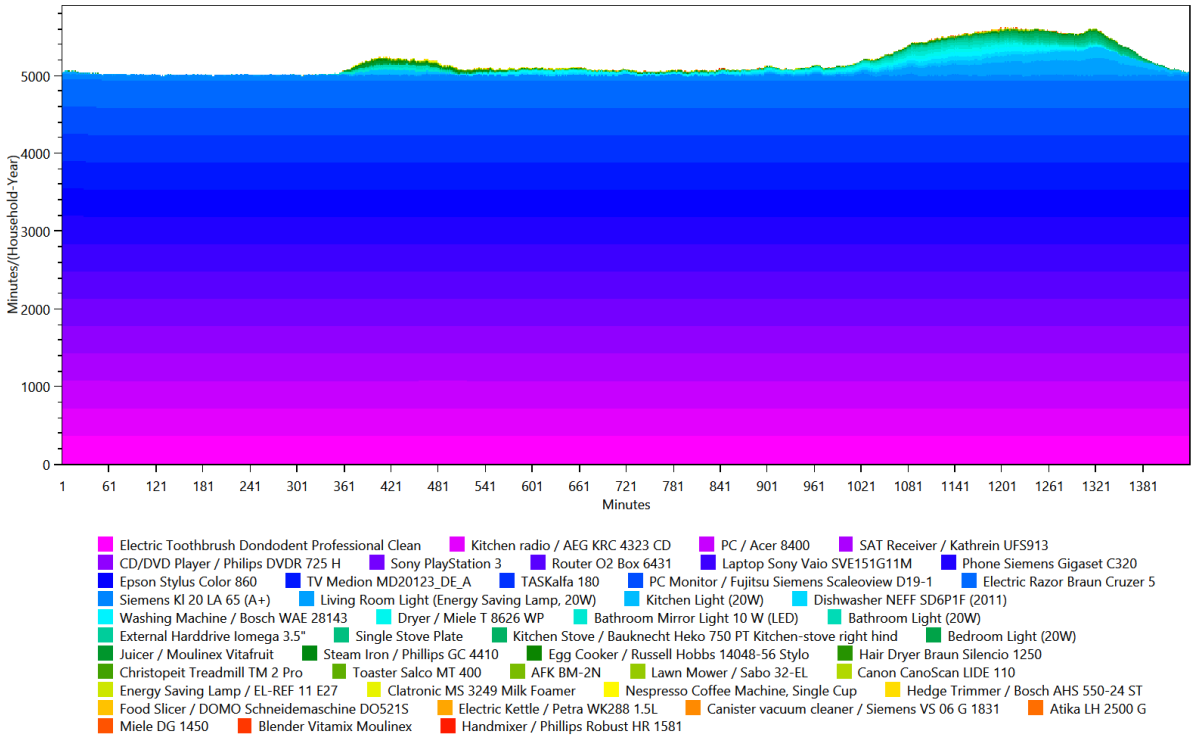
This is made from the files starting with: TimeOfUseEnergyProfiles

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

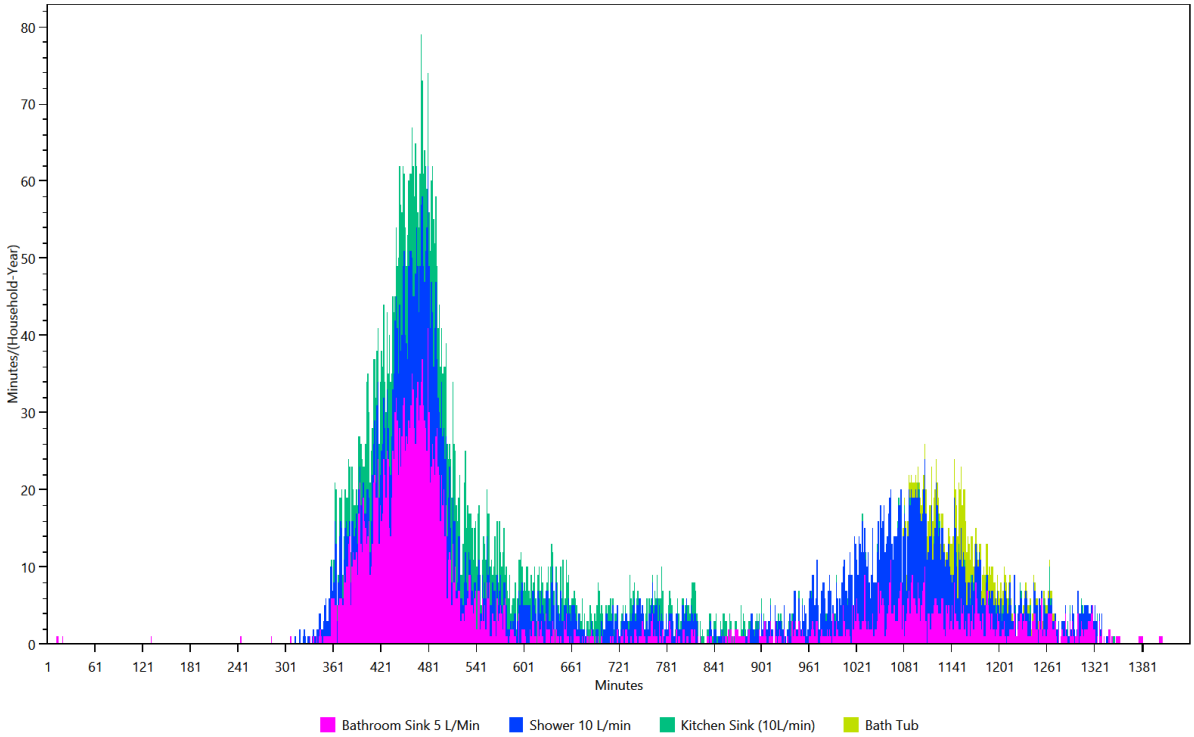
Cold Water



Electricity



Warm Water

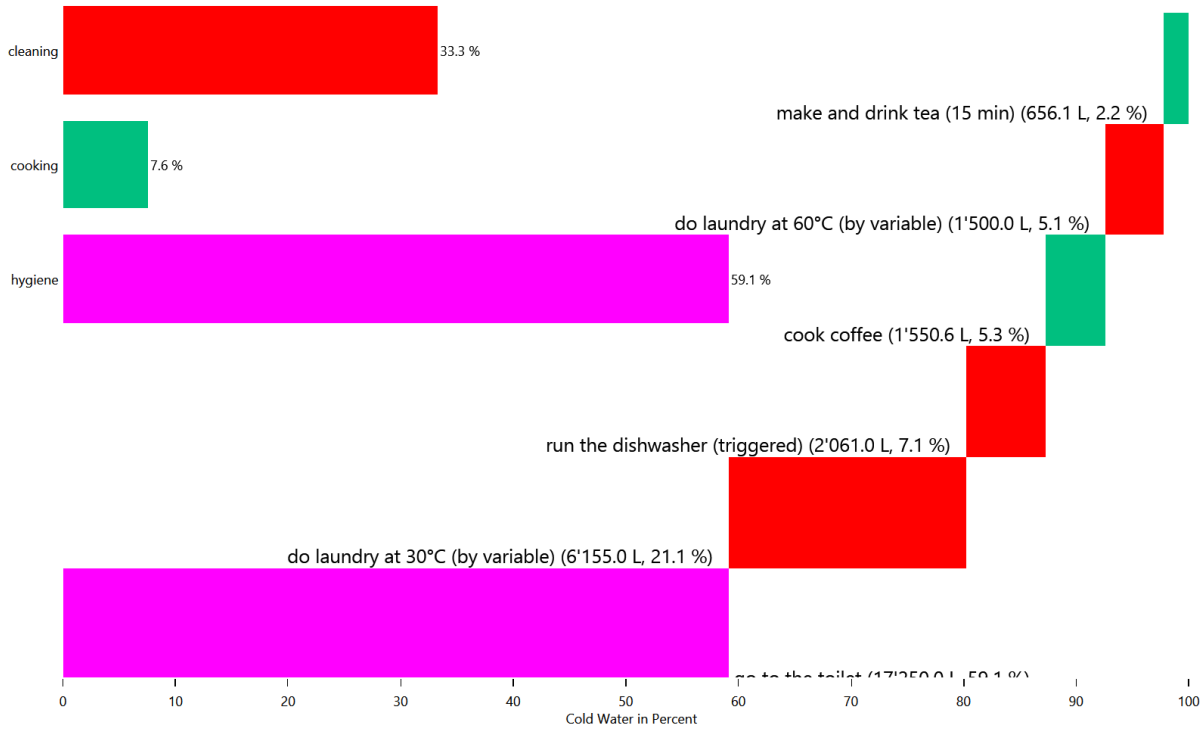


Energy/Resource use distribution per load type per affordance

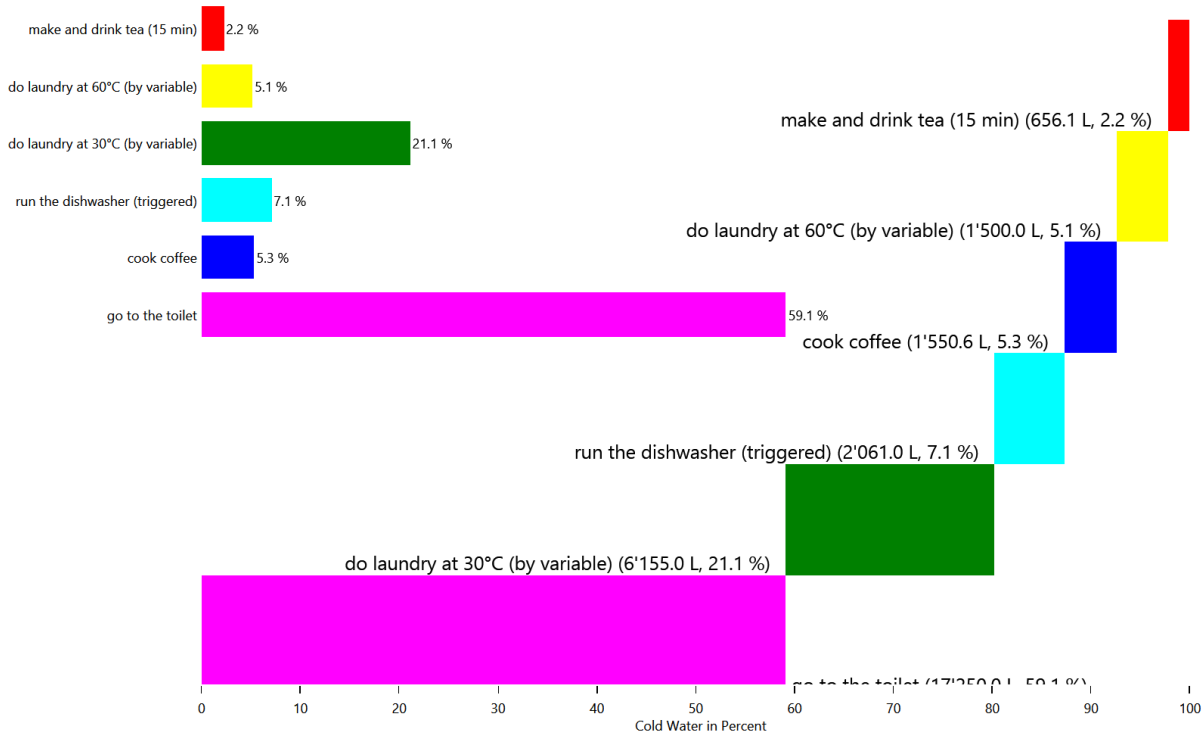
This is made from the files starting with: AffordanceEnergyUse

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

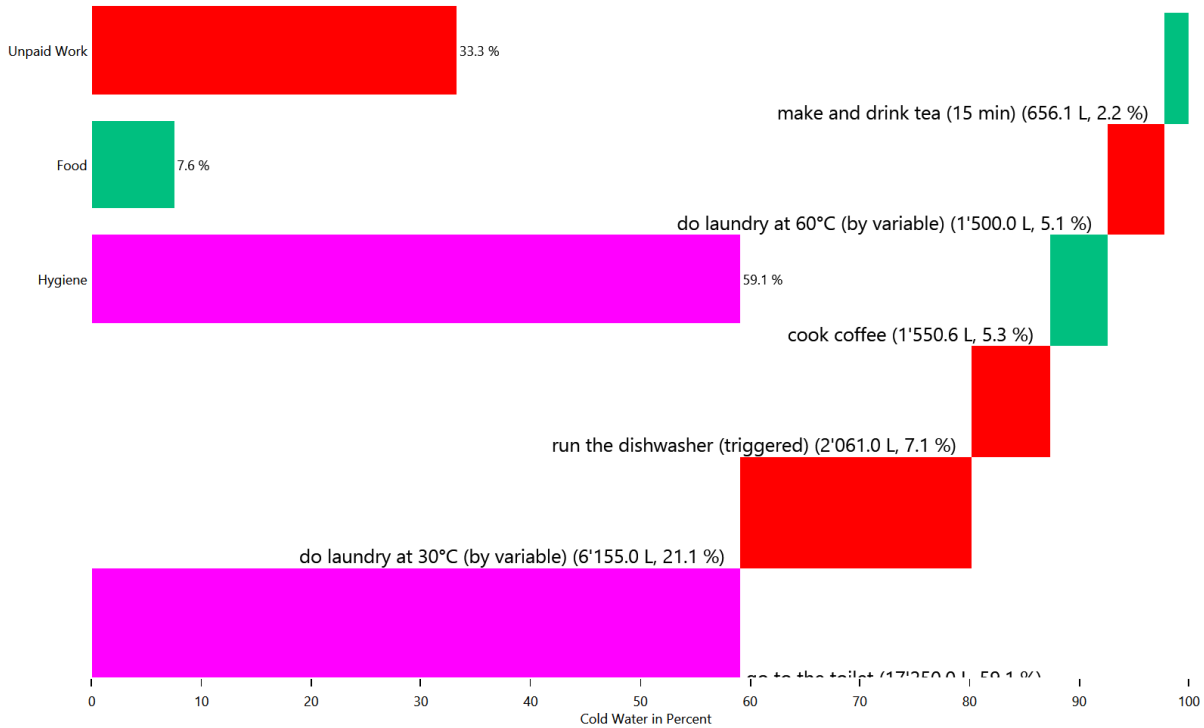
HH0 - Cold Water



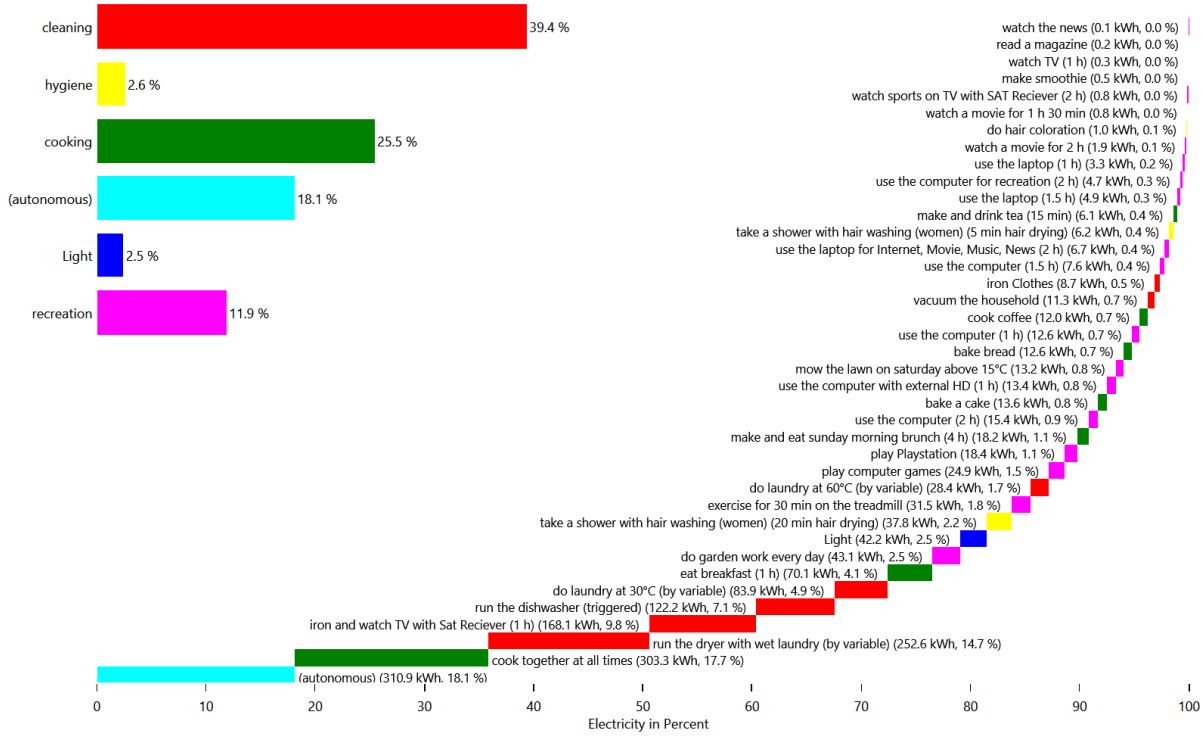
HH0 - Cold Water



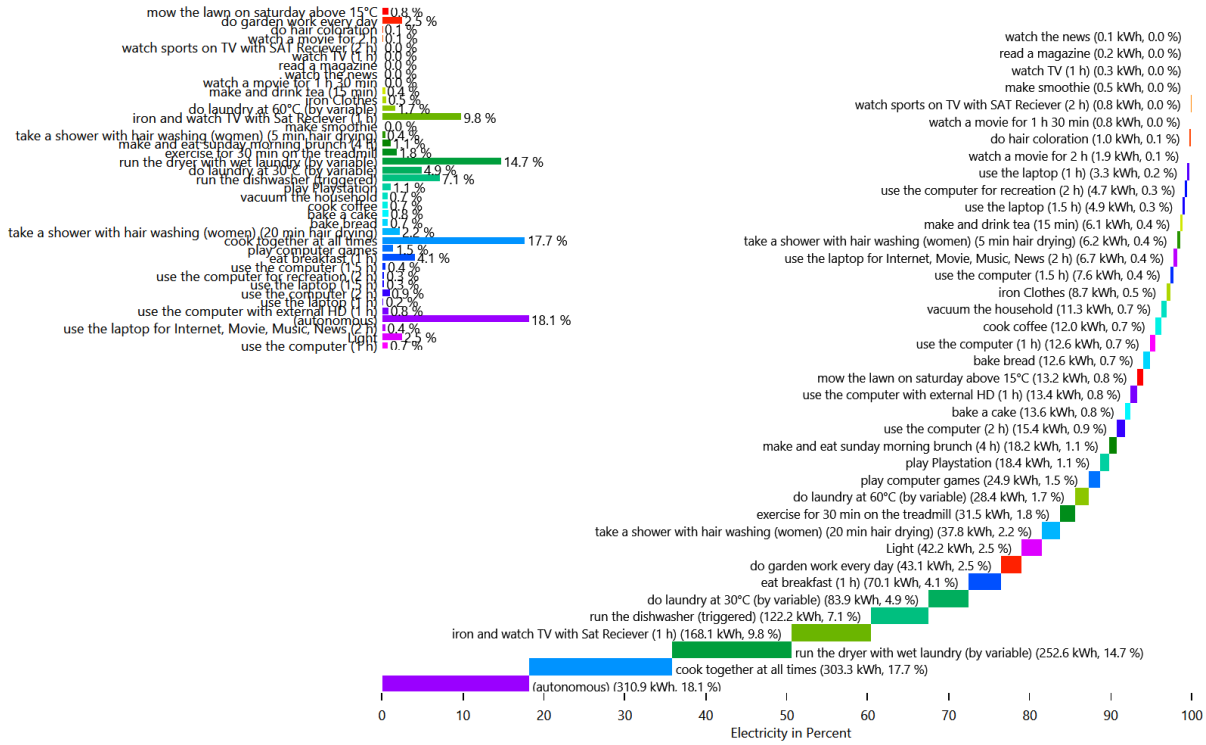
HH0 - Cold Water



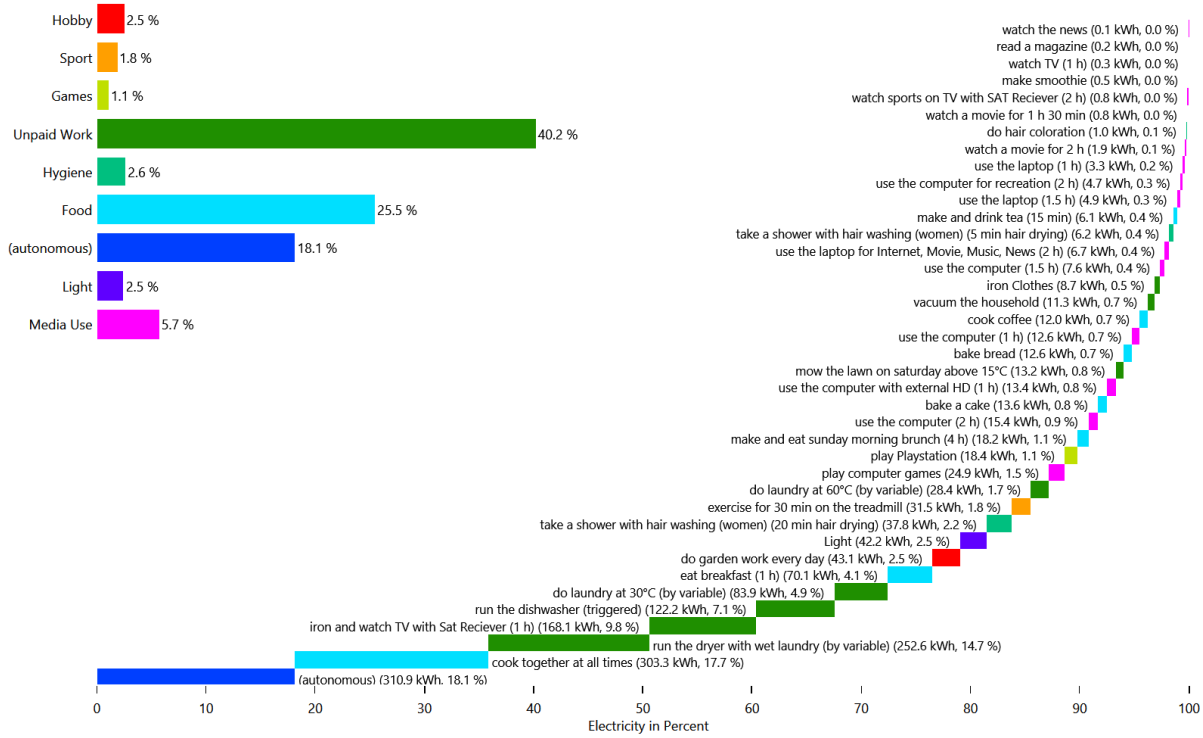
HH0 - Electricity



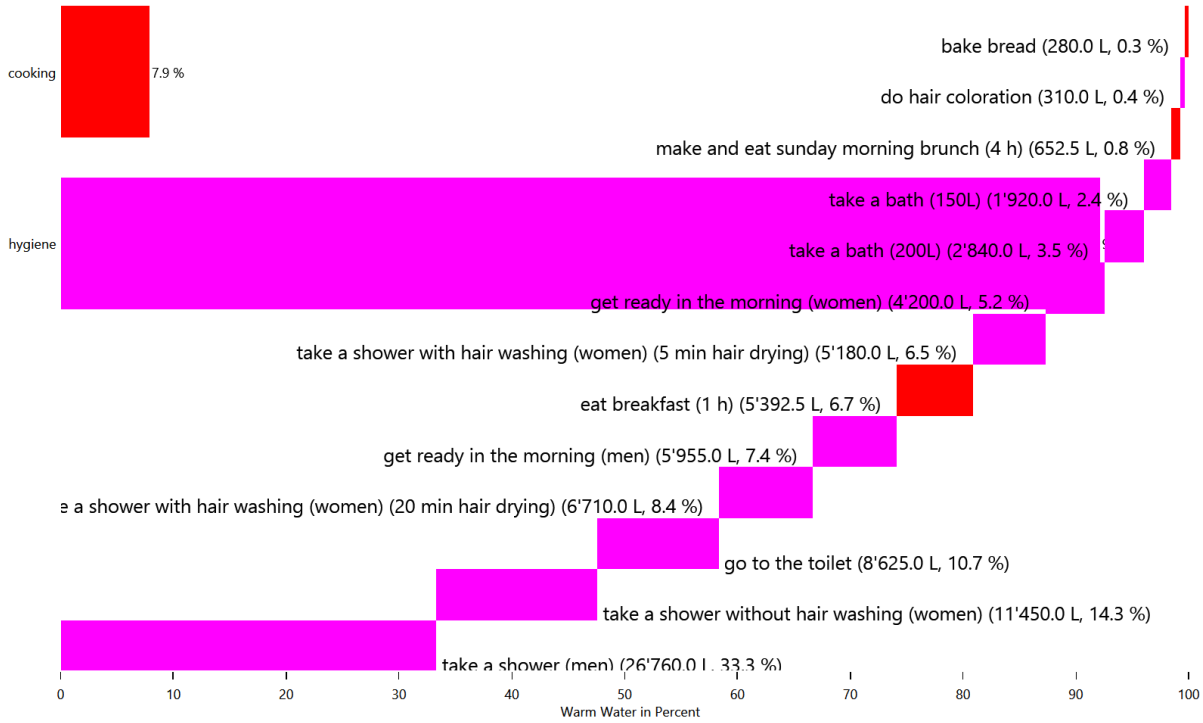
HH0 - Electricity



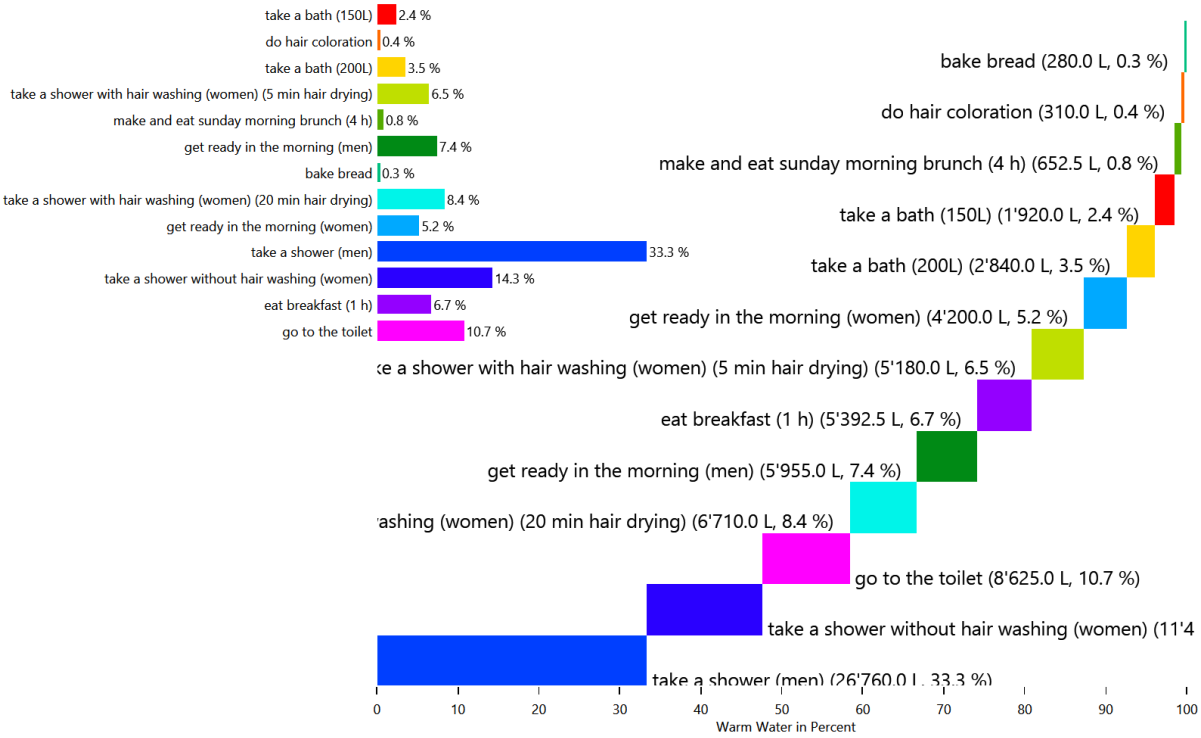
HH0 - Electricity



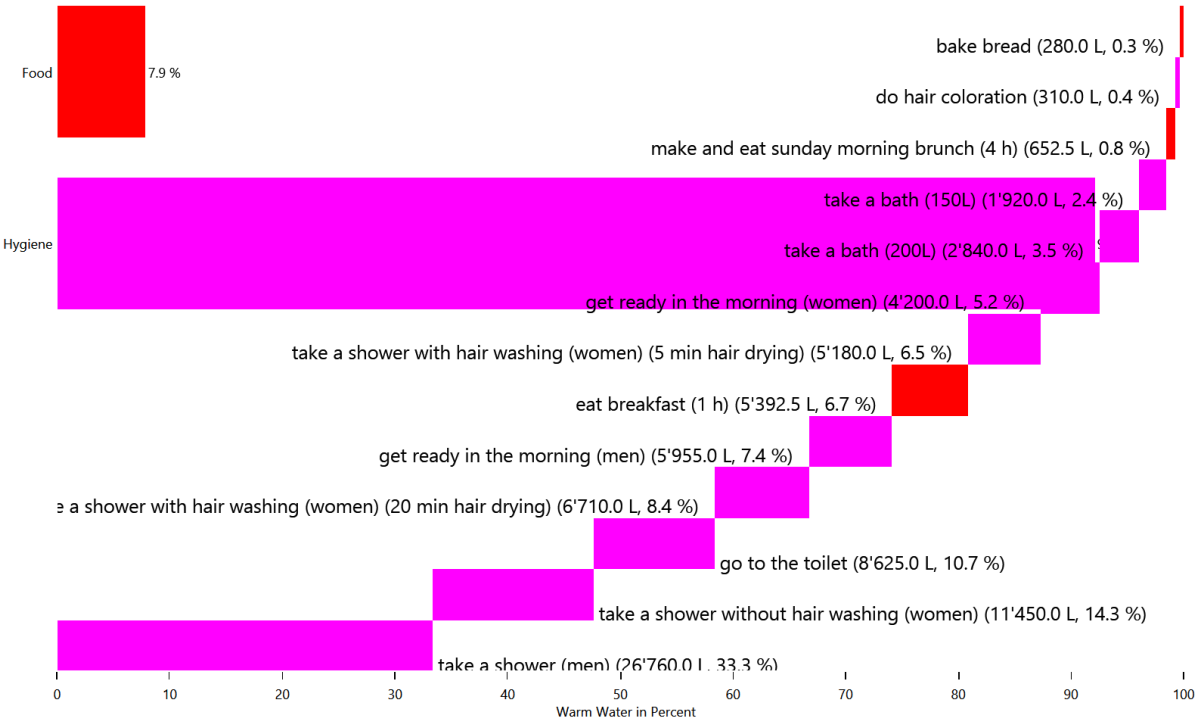
HH0 - Warm Water



HH0 - Warm Water



HH0 - Warm Water

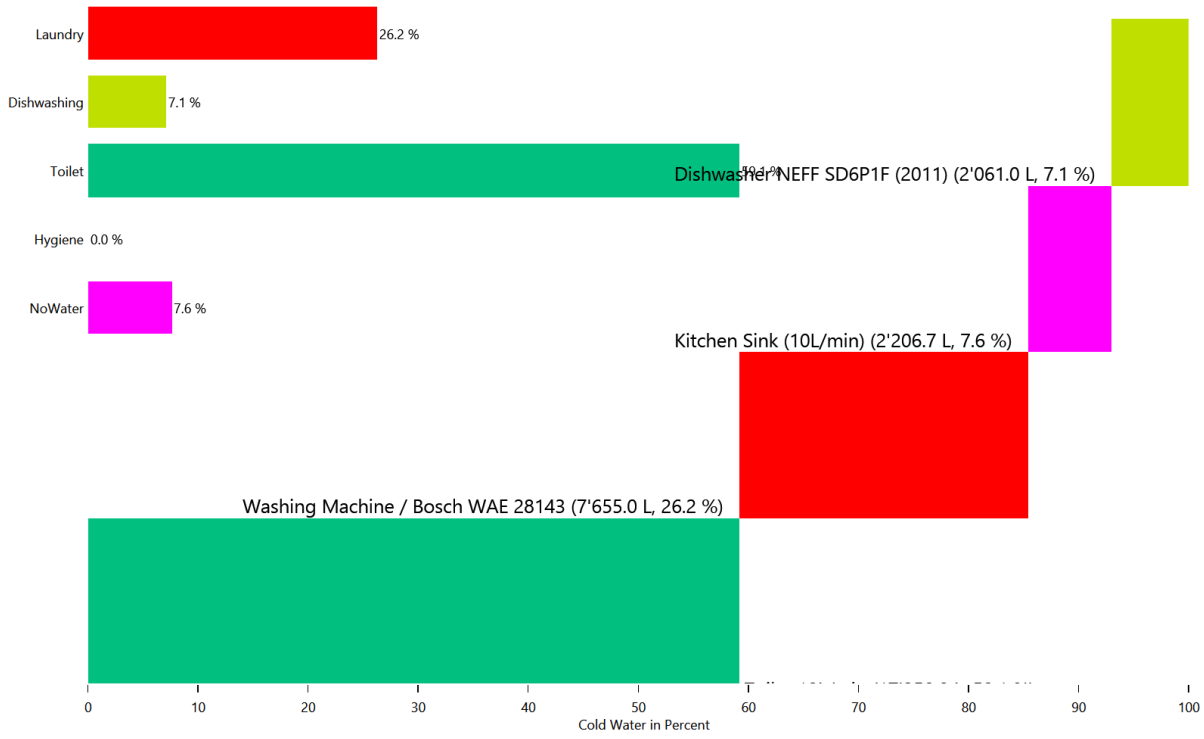


Energy use for each load type for each device

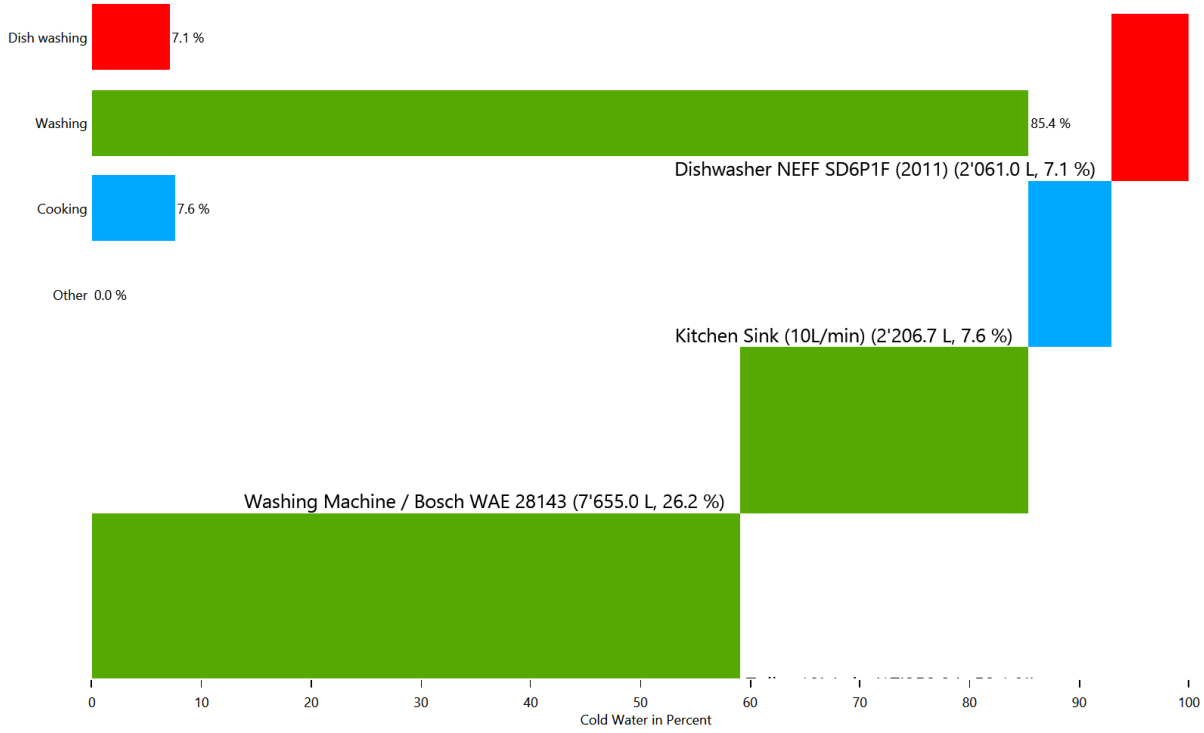
This is made from the files starting with: DeviceSums

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

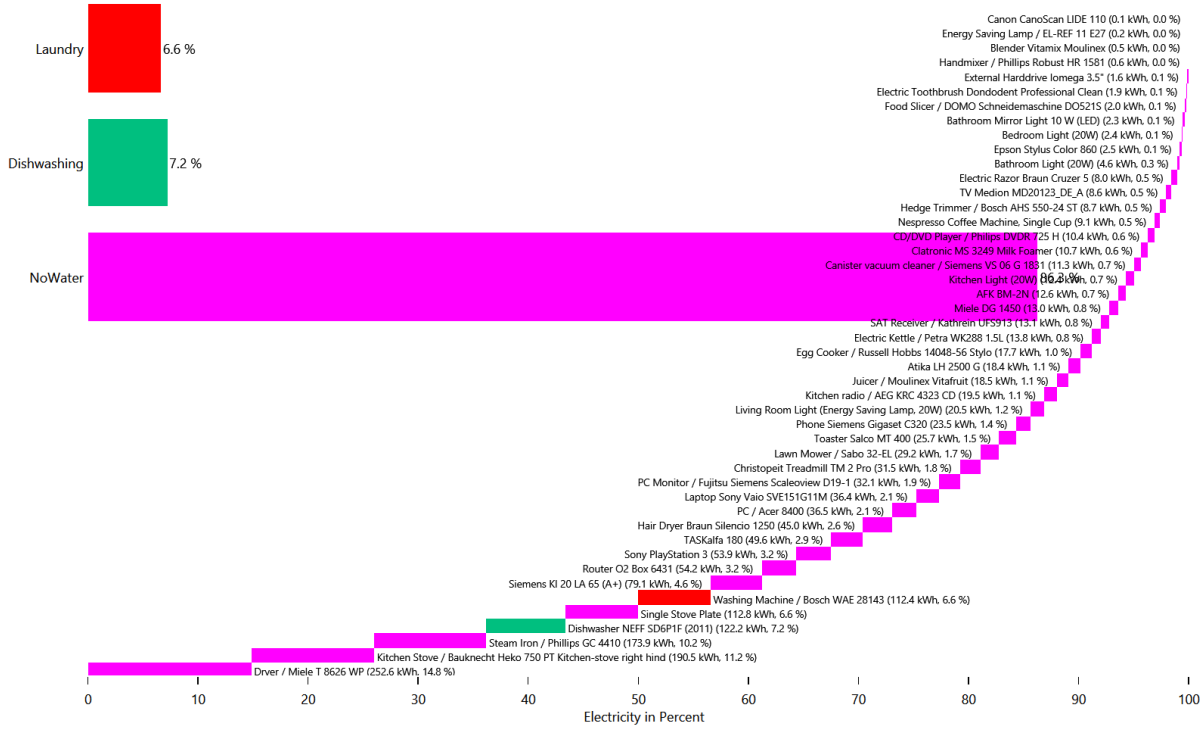
Cold Water



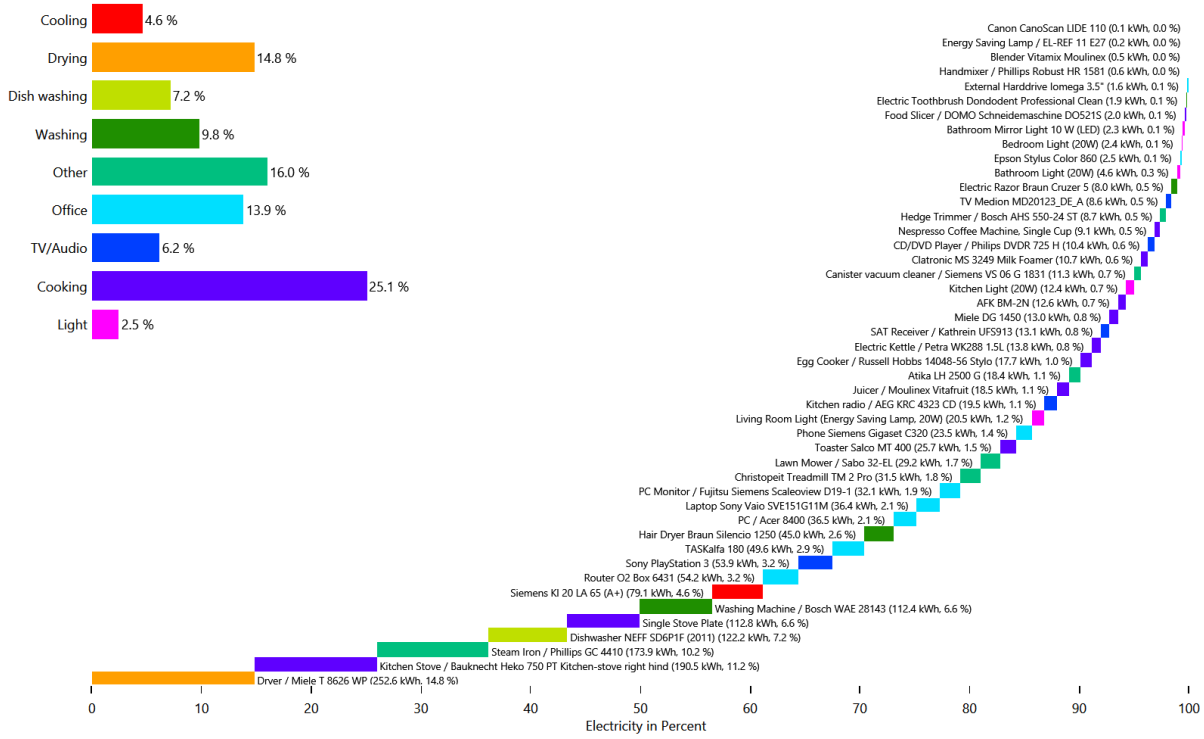
Cold Water



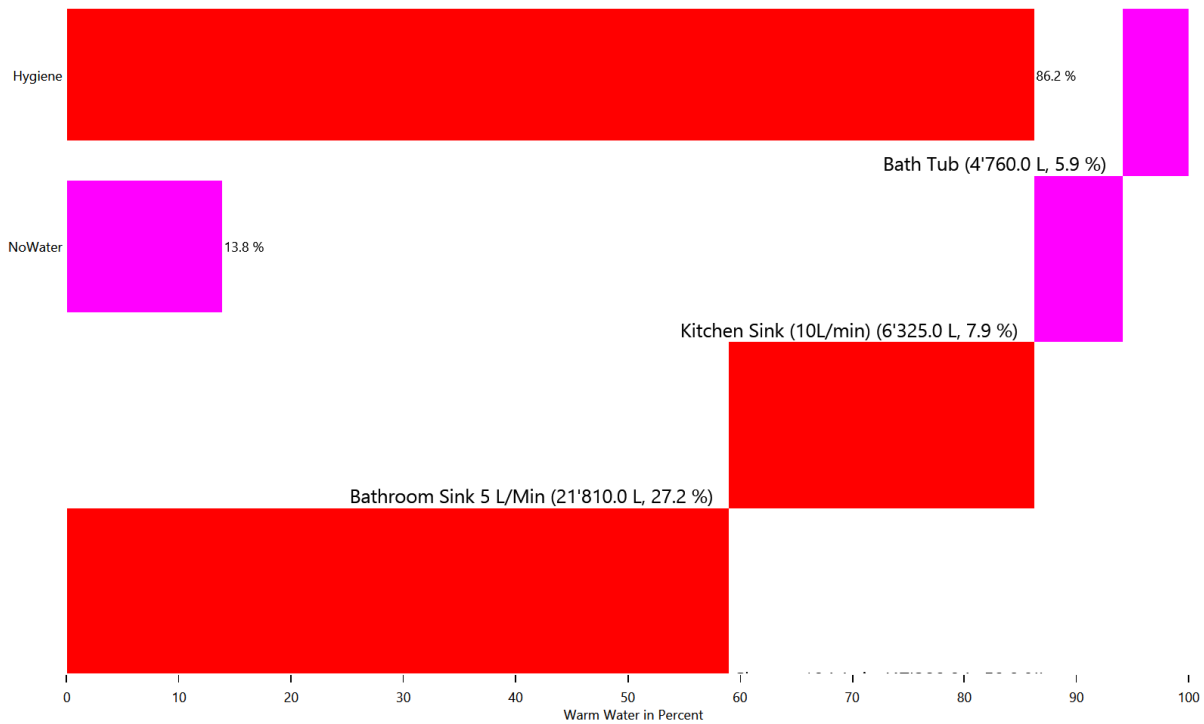
Electricity



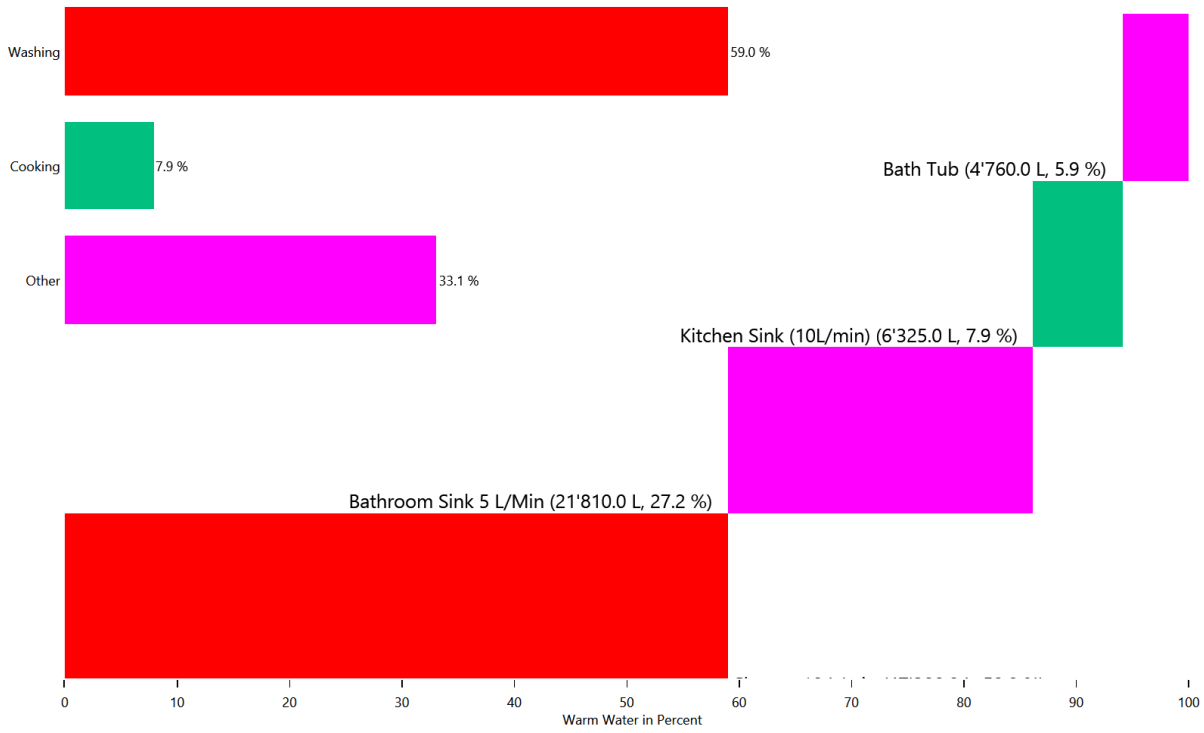
Electricity



Warm Water



Warm Water

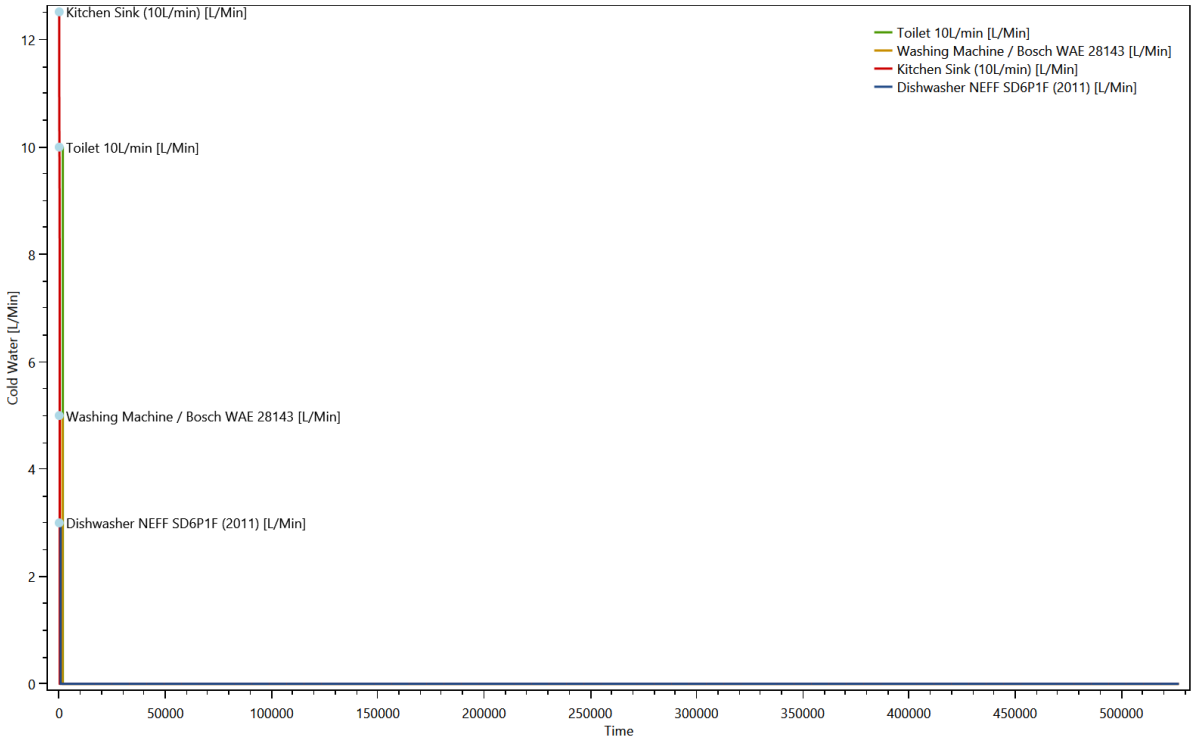

Washing
59.0 %
Cooking
7.9 %
Other
33.1 %
Bath Tub (4'760.0 L, 5.9 %)
Kitchen Sink (10L/min) (6'325.0 L, 7.9 %)
Bathroom Sink 5 L/Min (21'810.0 L, 27.2 %)
0
10
20
30
40
50
60
70
80
90
100
Warm Water in Percent

Duration curve for each device for each load type

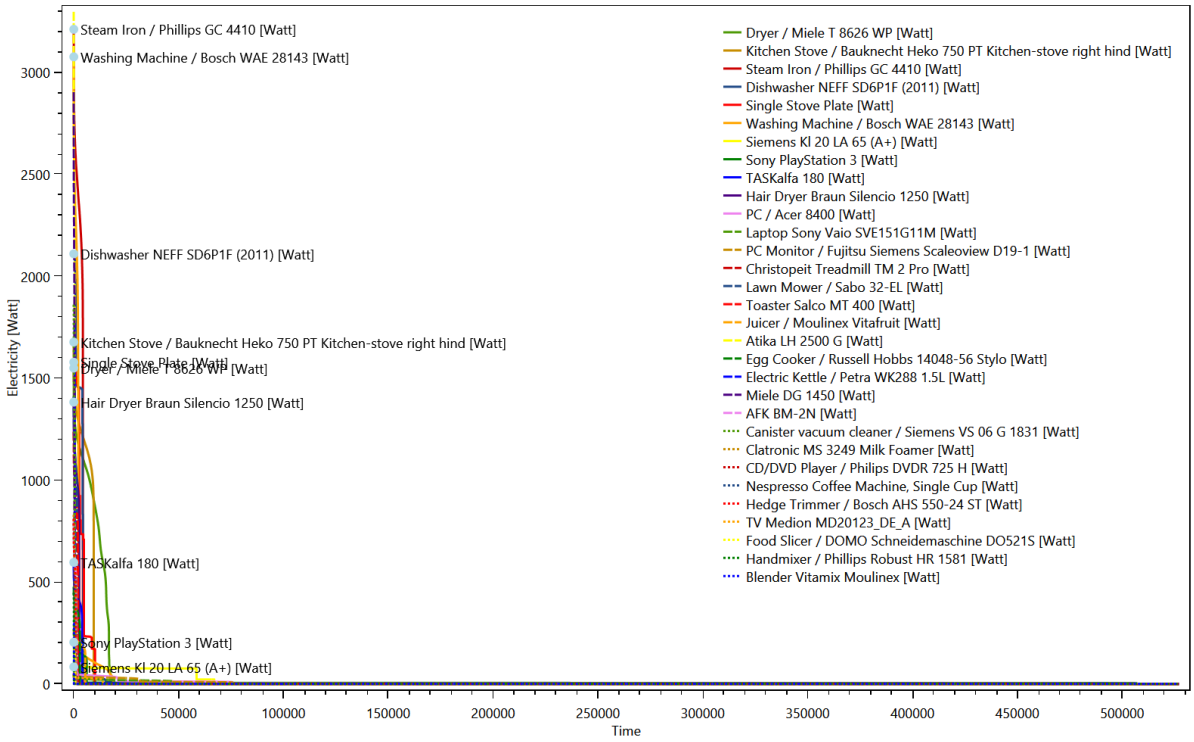
This is made from the files starting with: DeviceDurationCurves

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

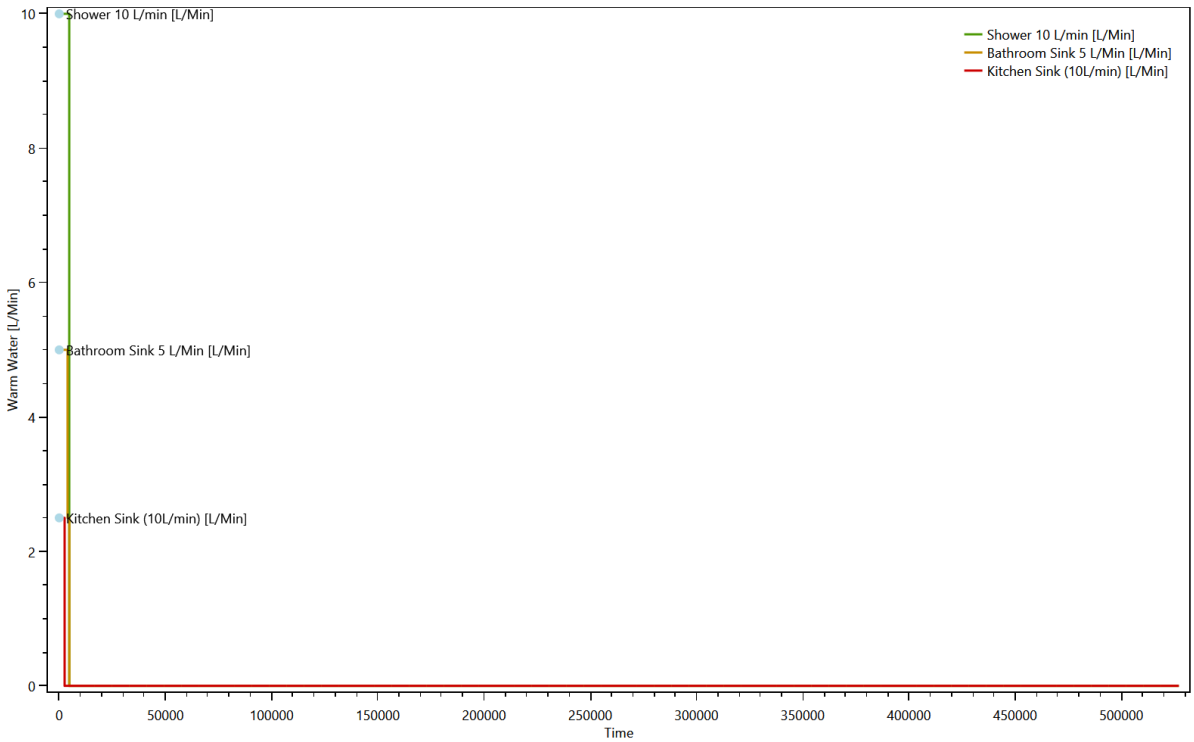
Cold Water



Electricity



Warm Water

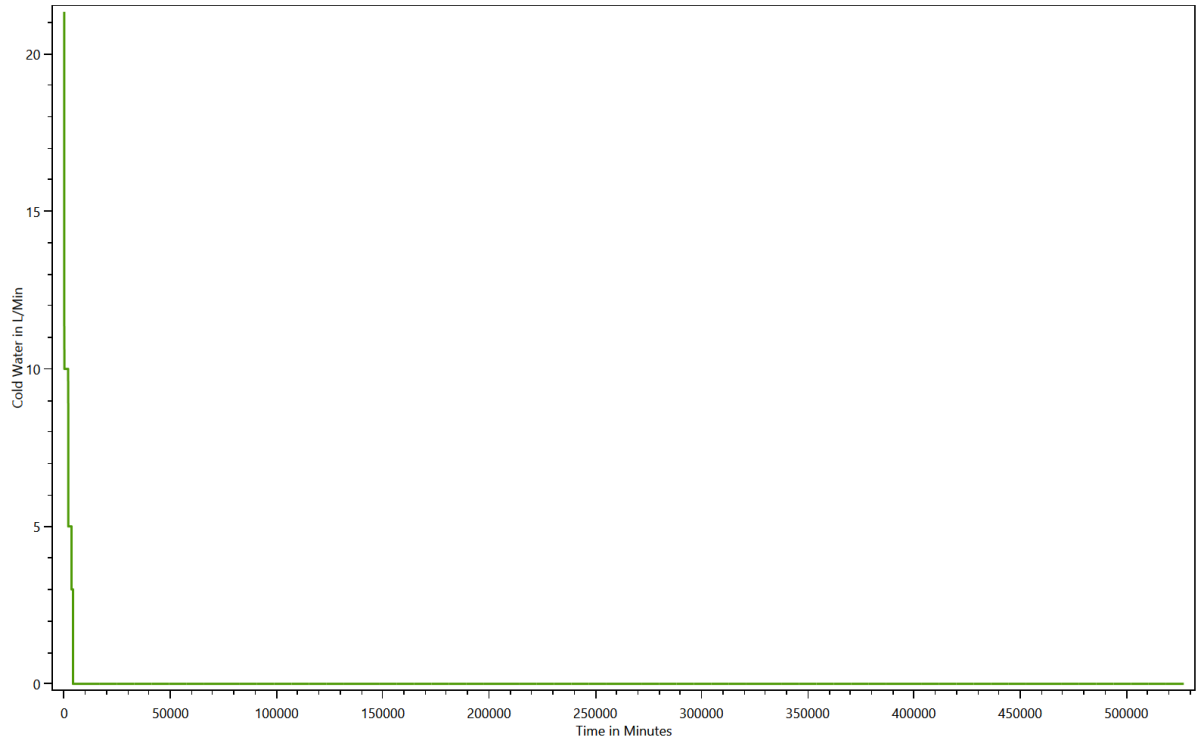


Duration curve for each load type

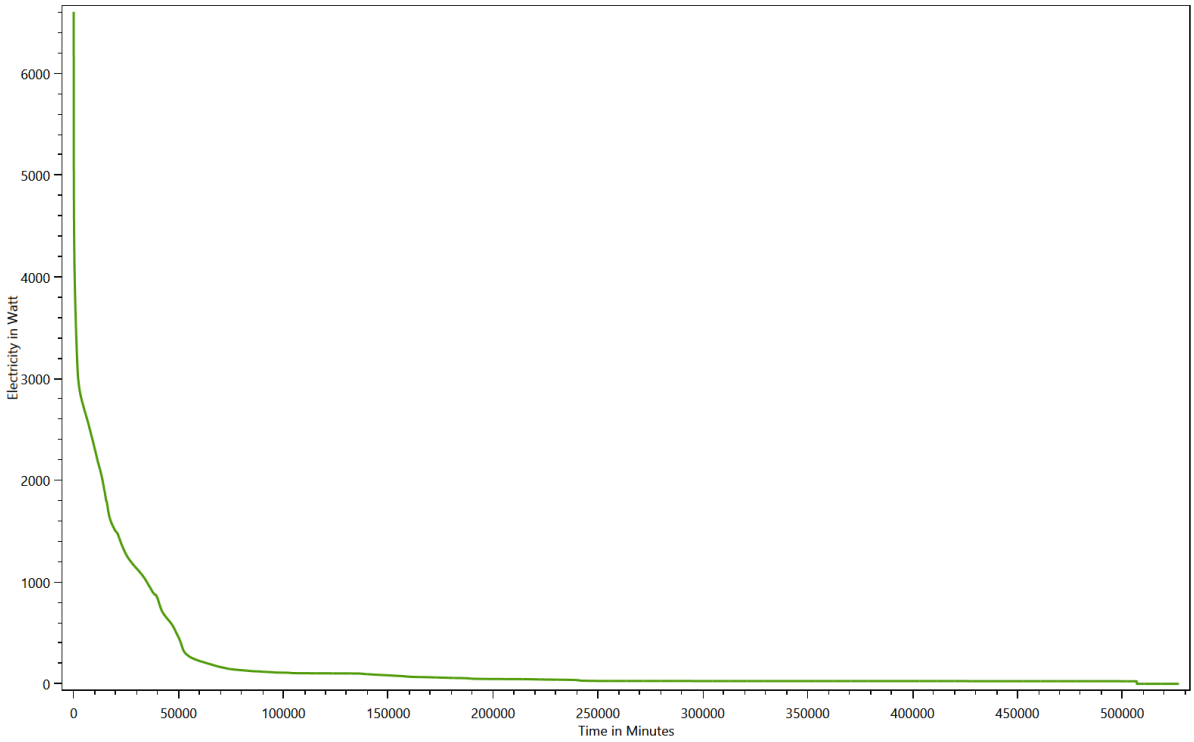
This is made from the files starting with: DurationCurve

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

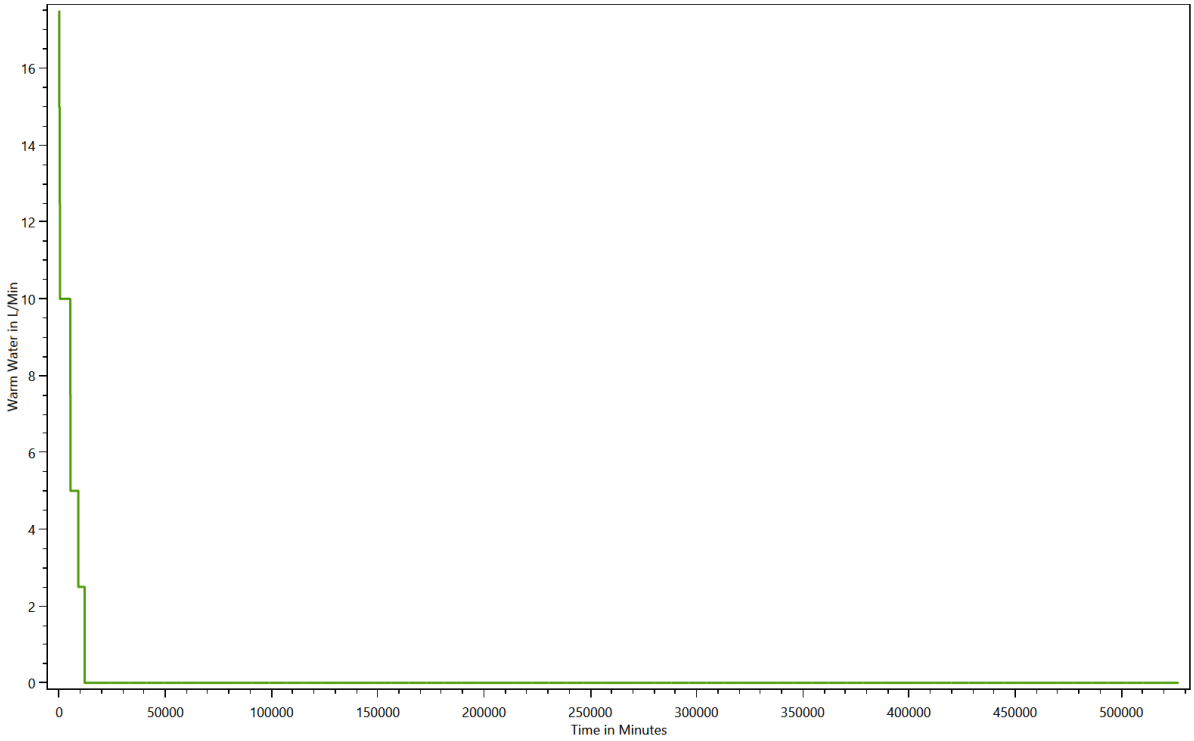
Cold Water



Electricity



Warm Water

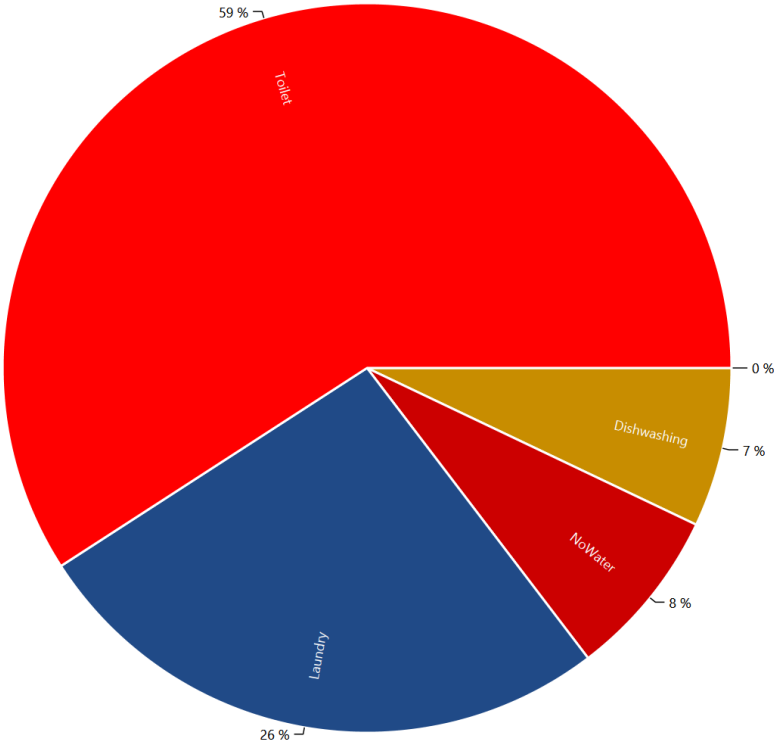


Grouped energy use for each load type for each device

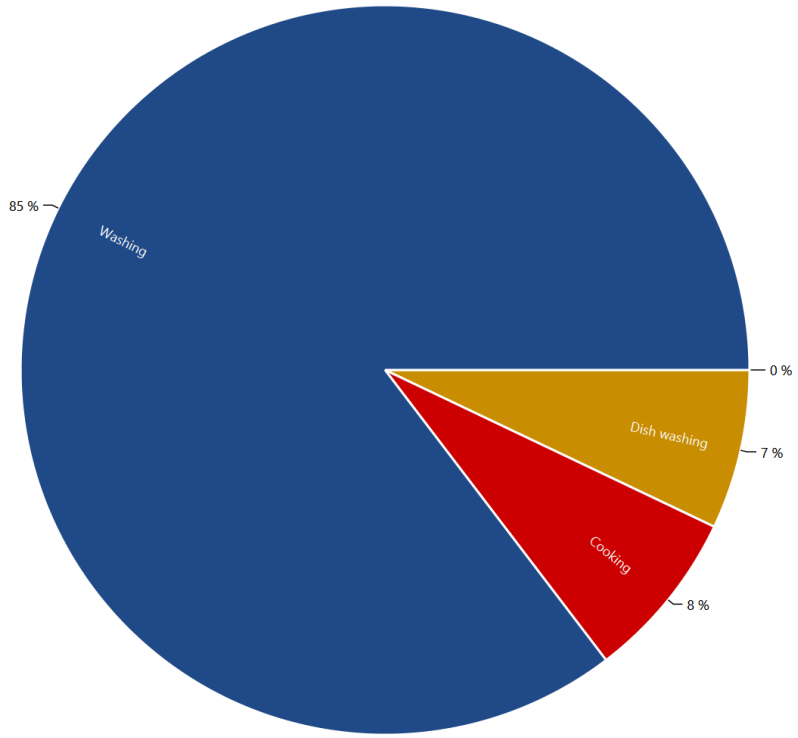
This is made from the files starting with: DeviceTaggingSet

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

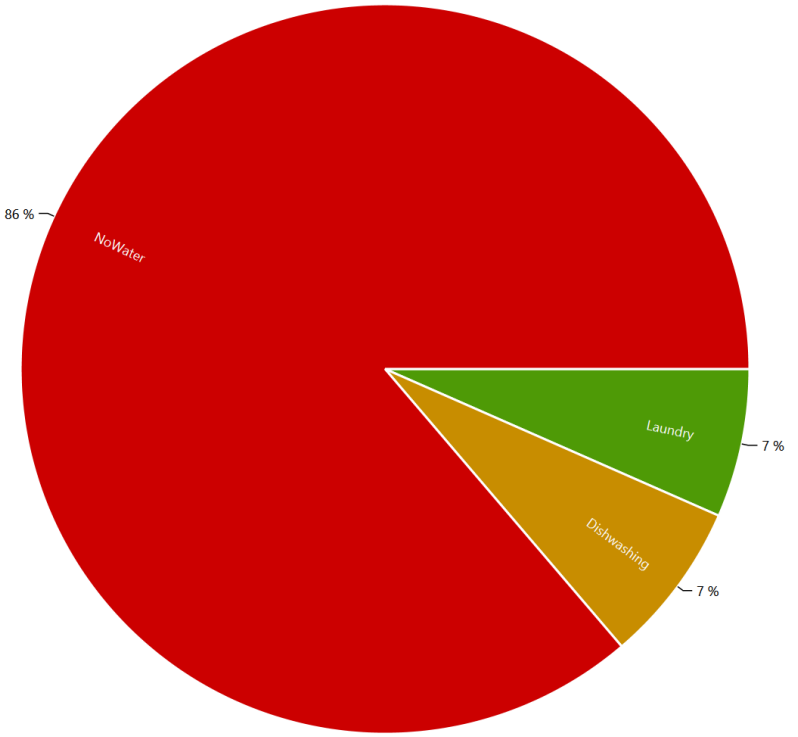
HH0 - Destatis Water Usage Statistics - Cold Water



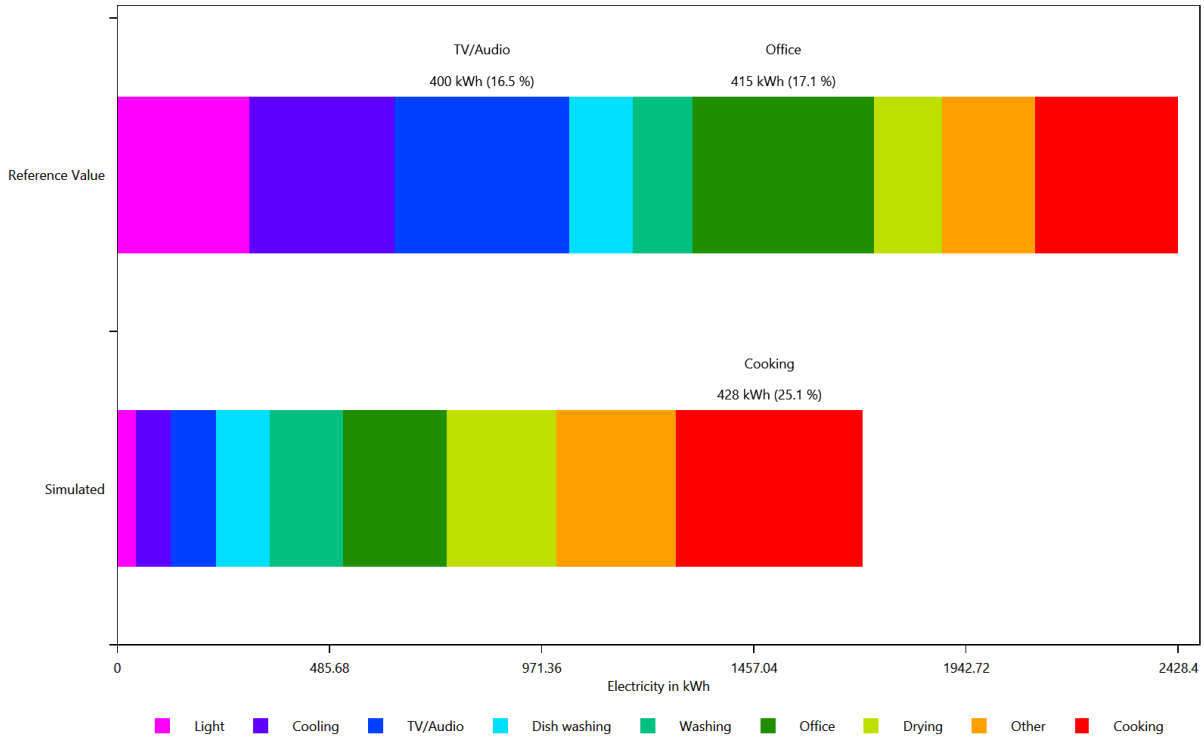
HH0 - Energieagentur - Cold Water



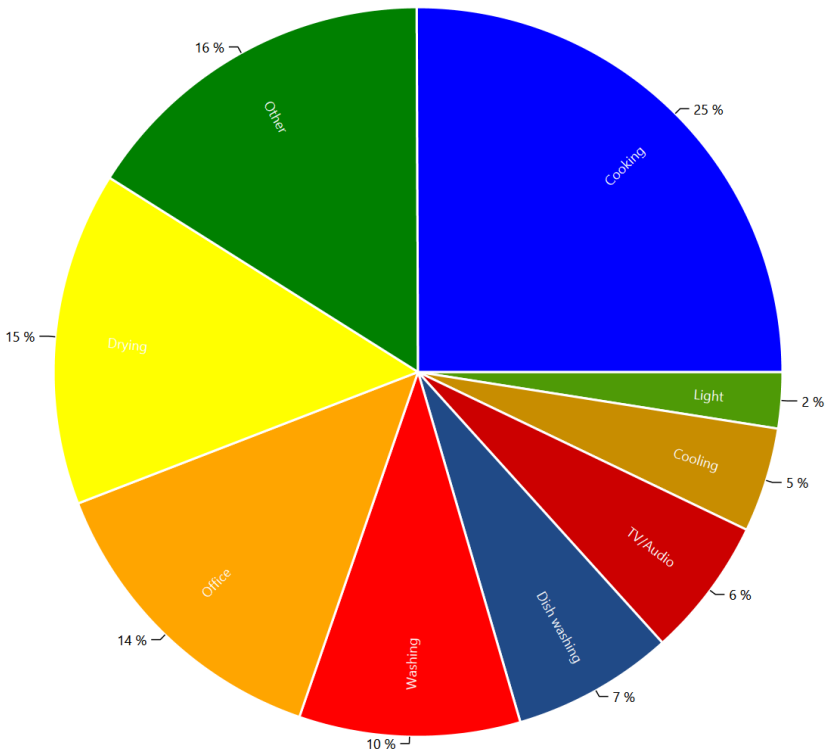
HH0 - Destatis Water Usage Statistics - Electricity



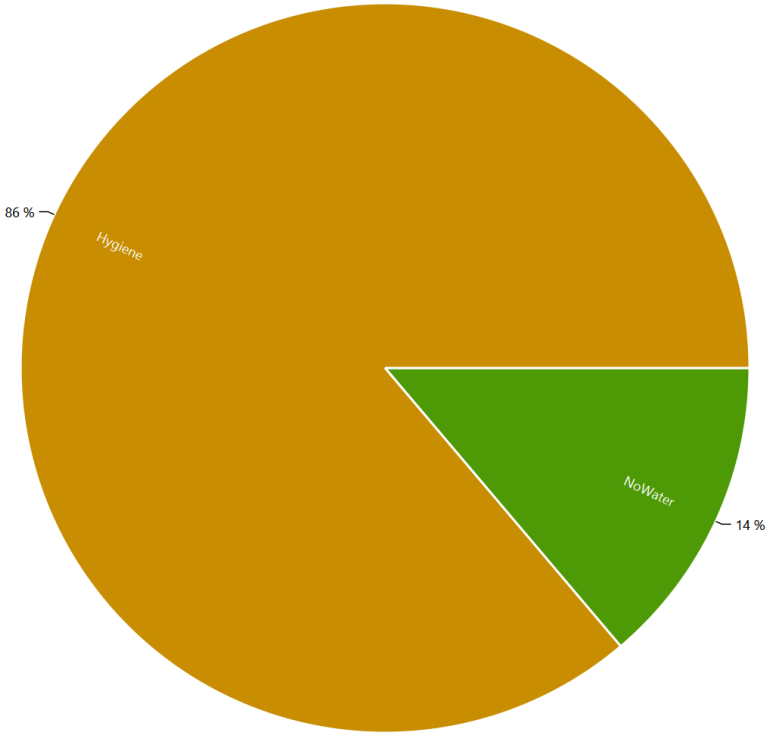
HH0 - Energieagentur - Electricity



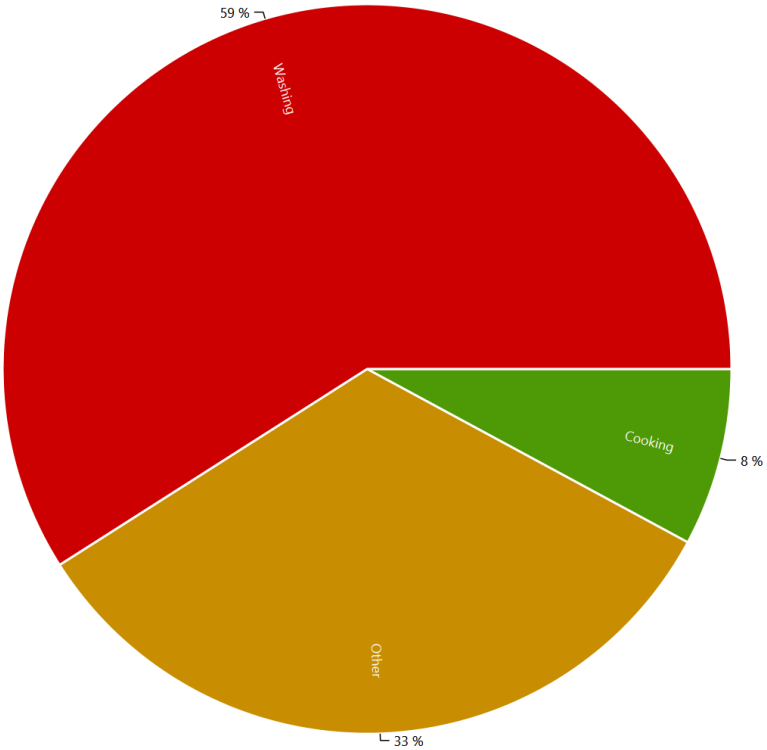
HH0 - Energieagentur - Electricity



HH0 - Destatis Water Usage Statistics - Warm Water



HH0 - Energieagentur - Warm Water

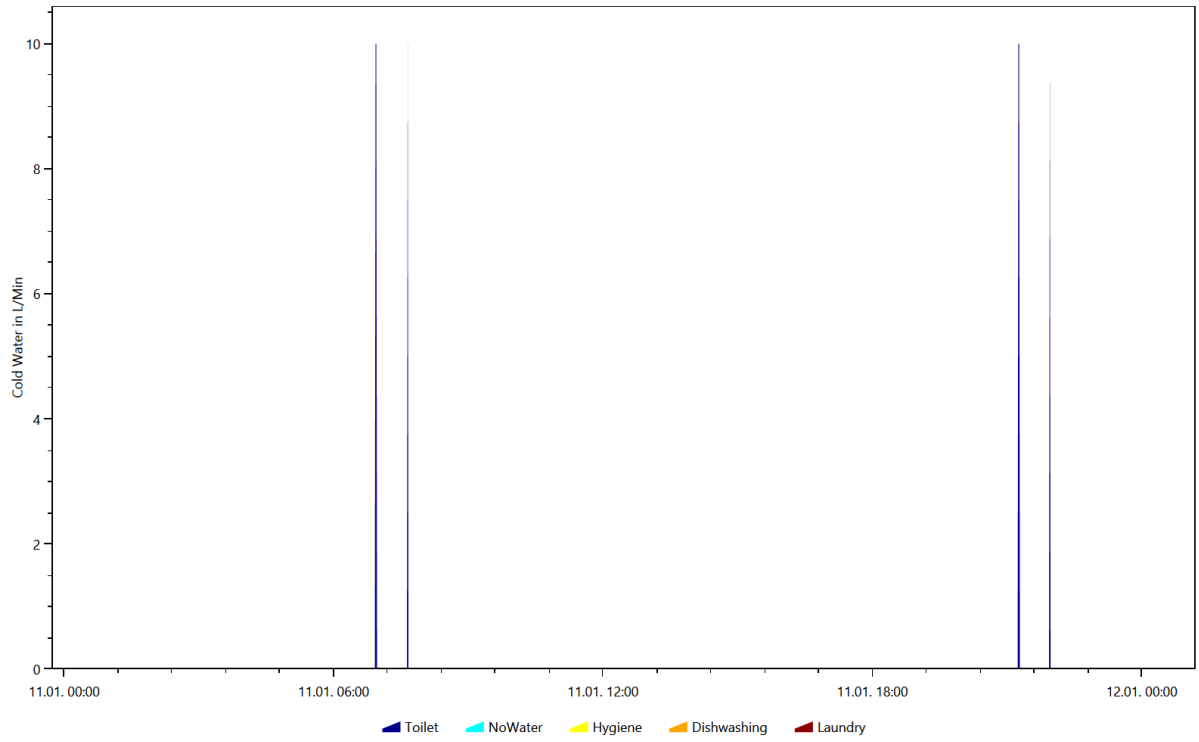


Example of the device profiles for each load type

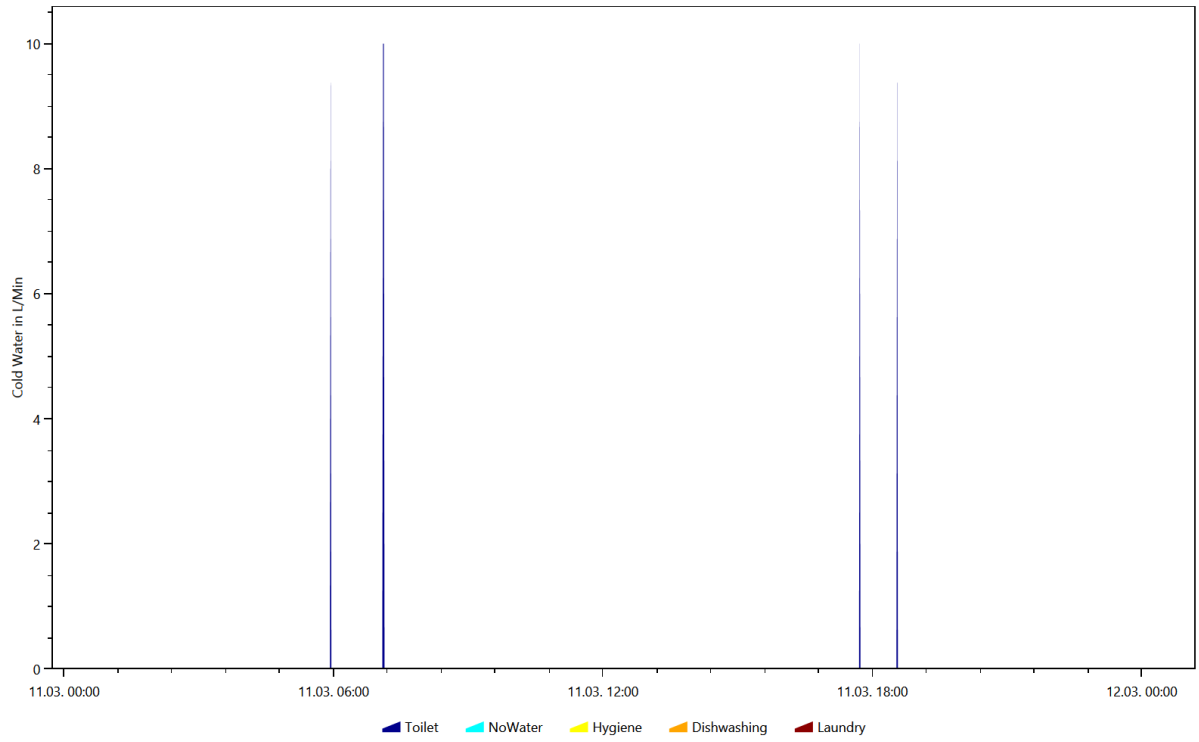
This is made from the files starting with: DeviceProfiles

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

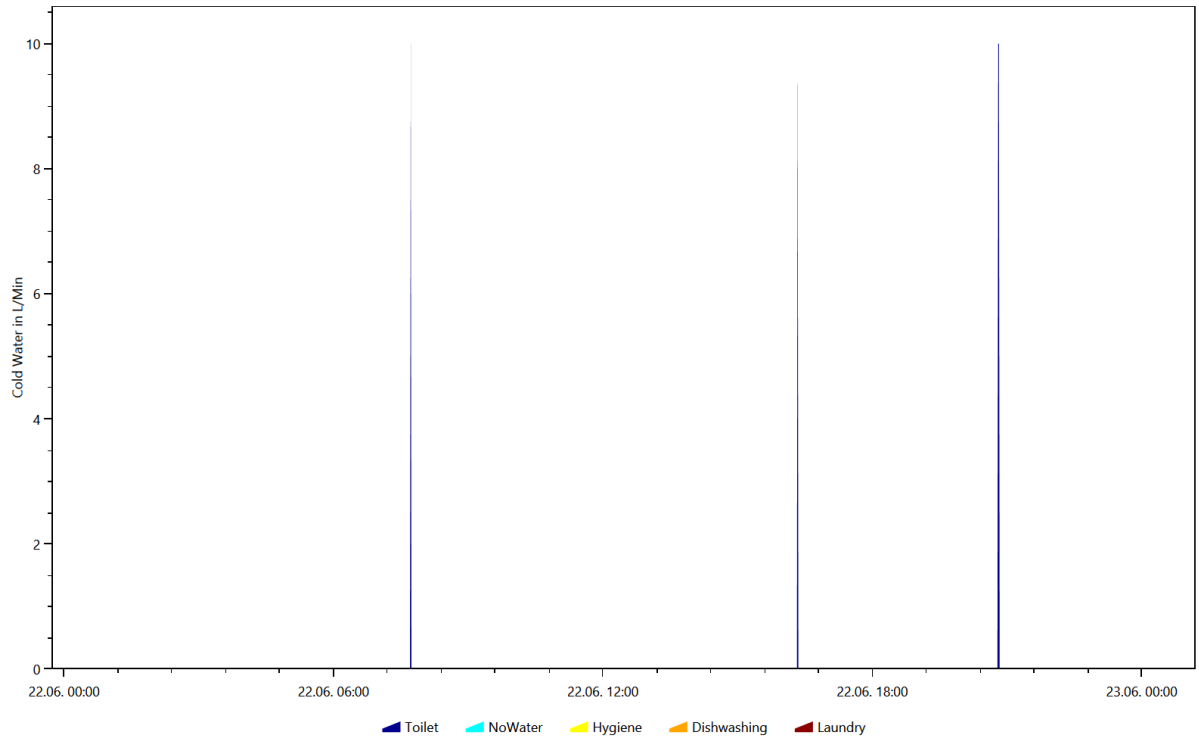
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.1.11



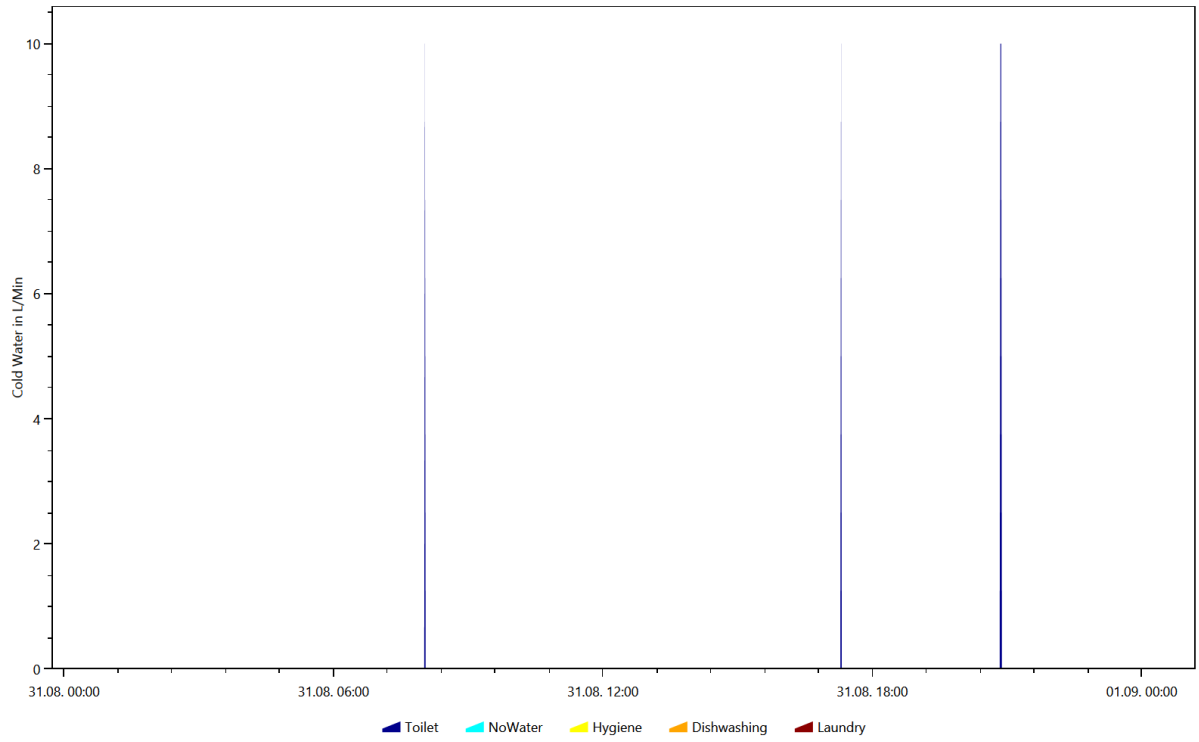
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.3.11



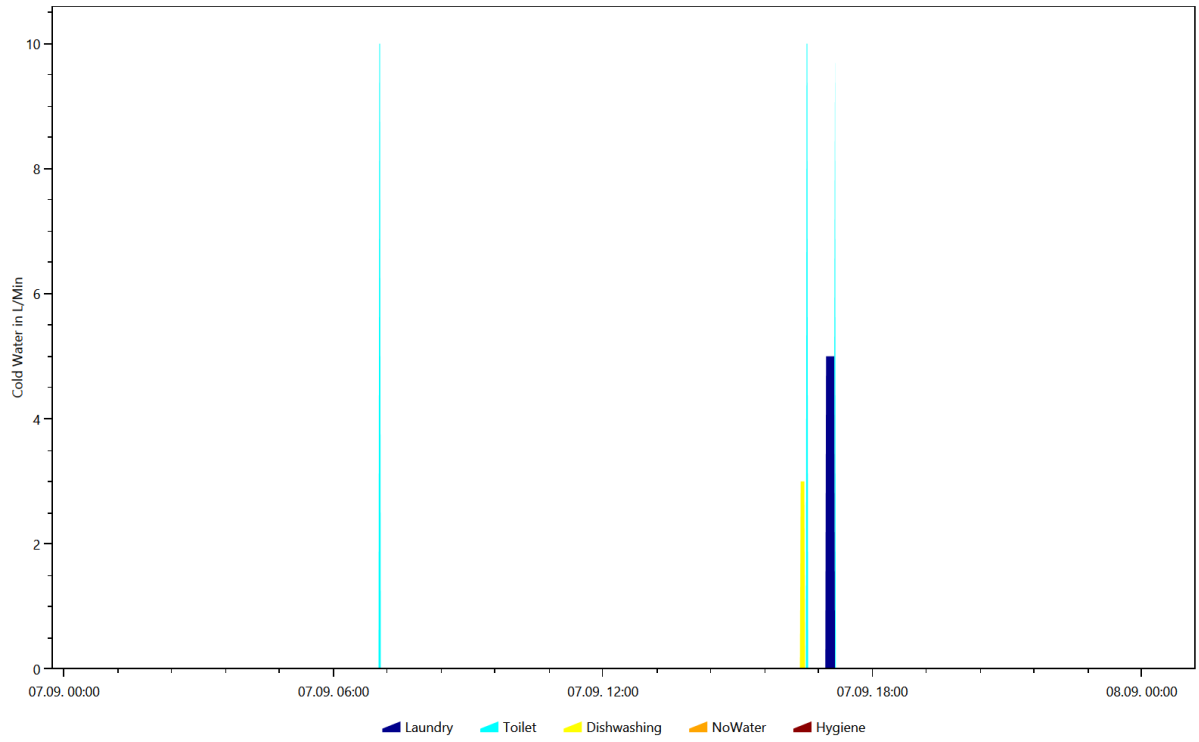
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.6.22



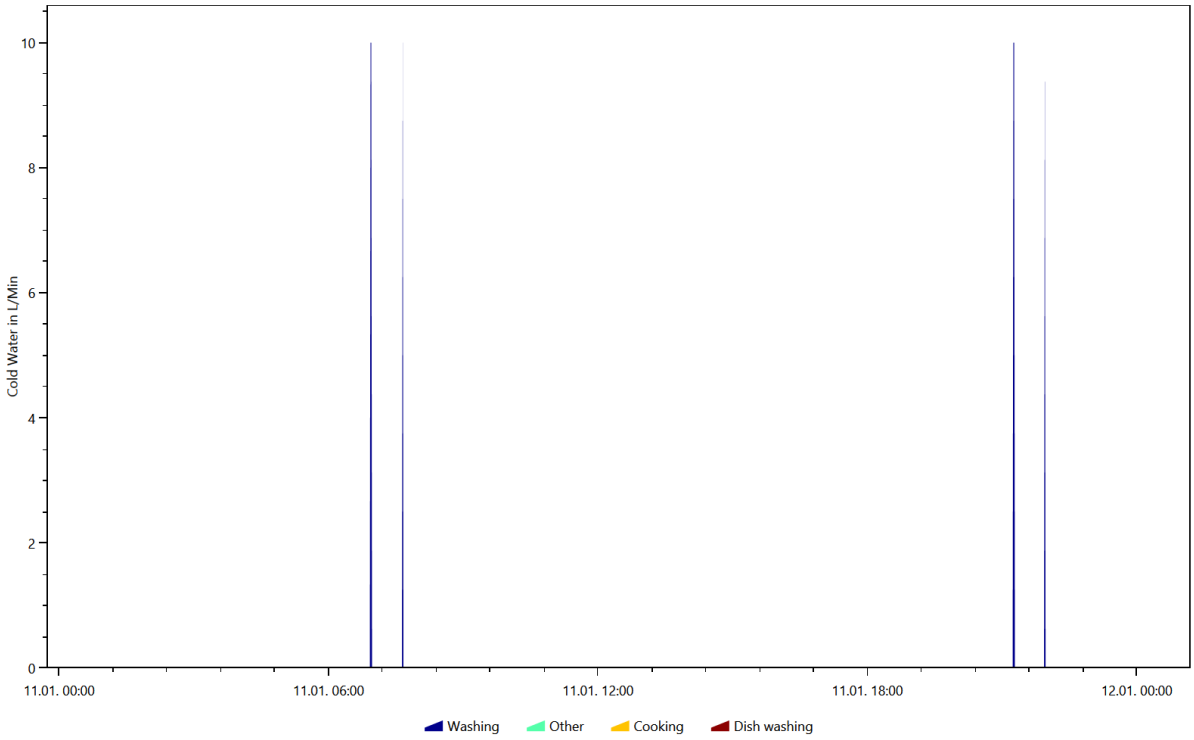
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.31



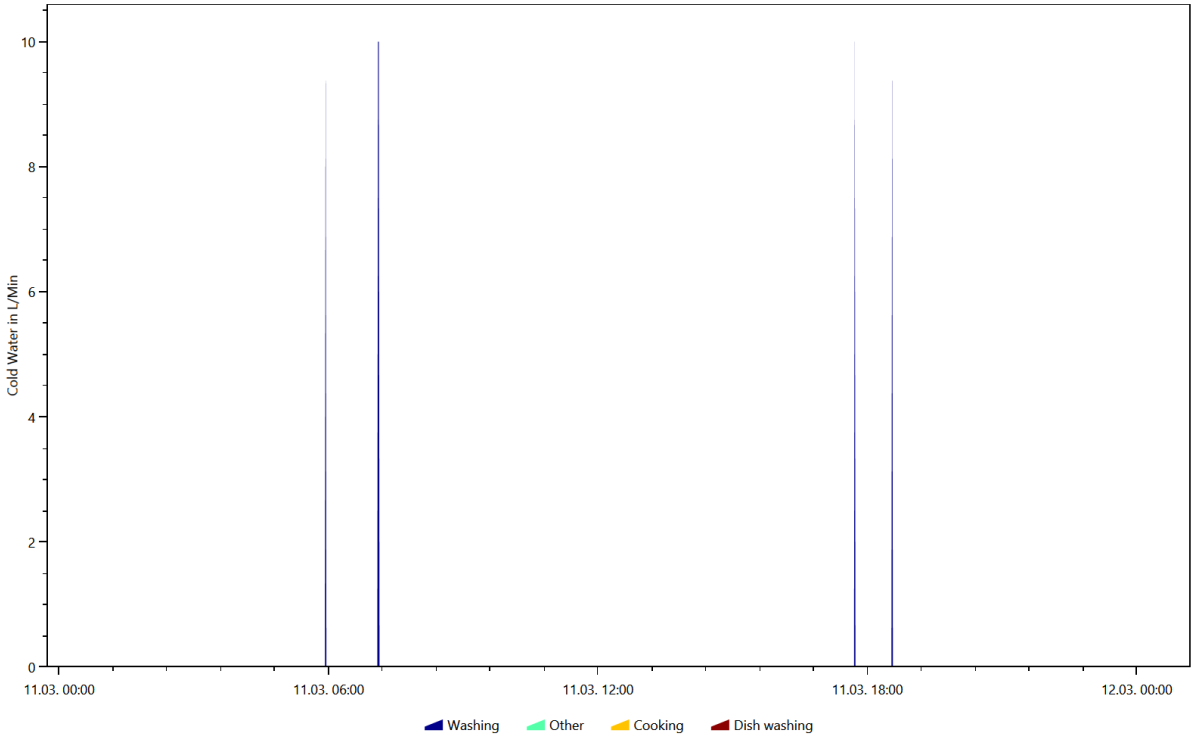
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.9.7



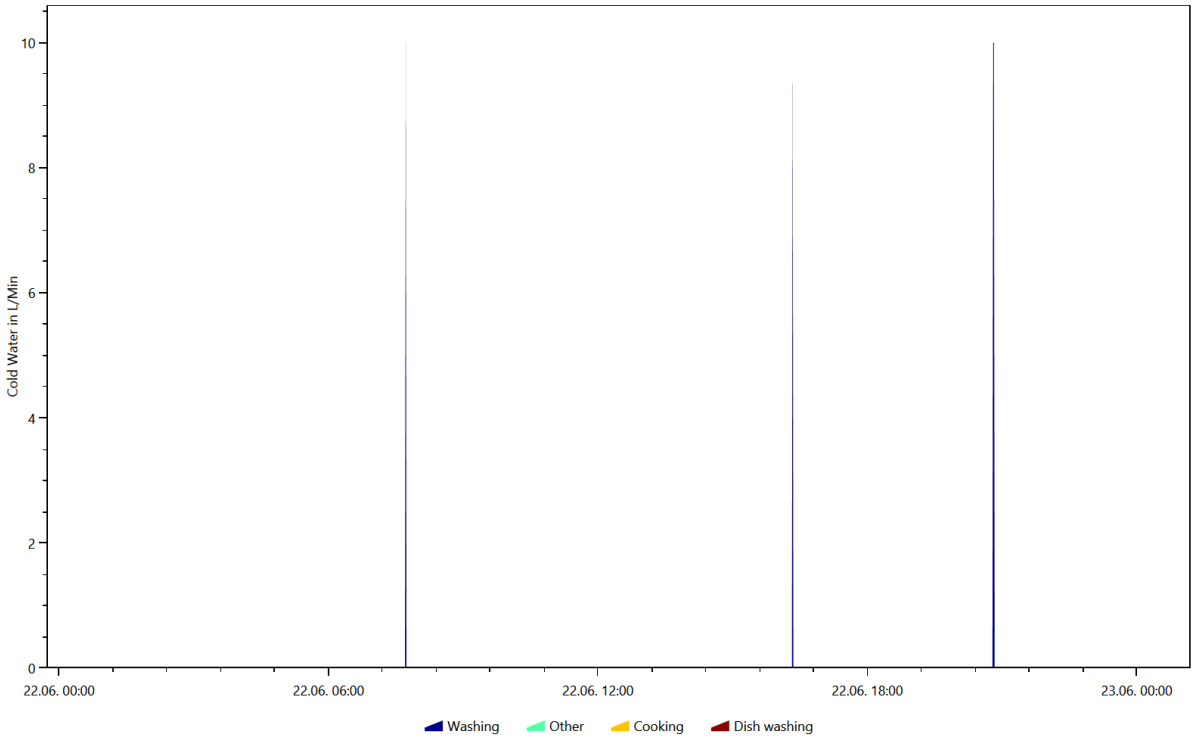
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.1.11



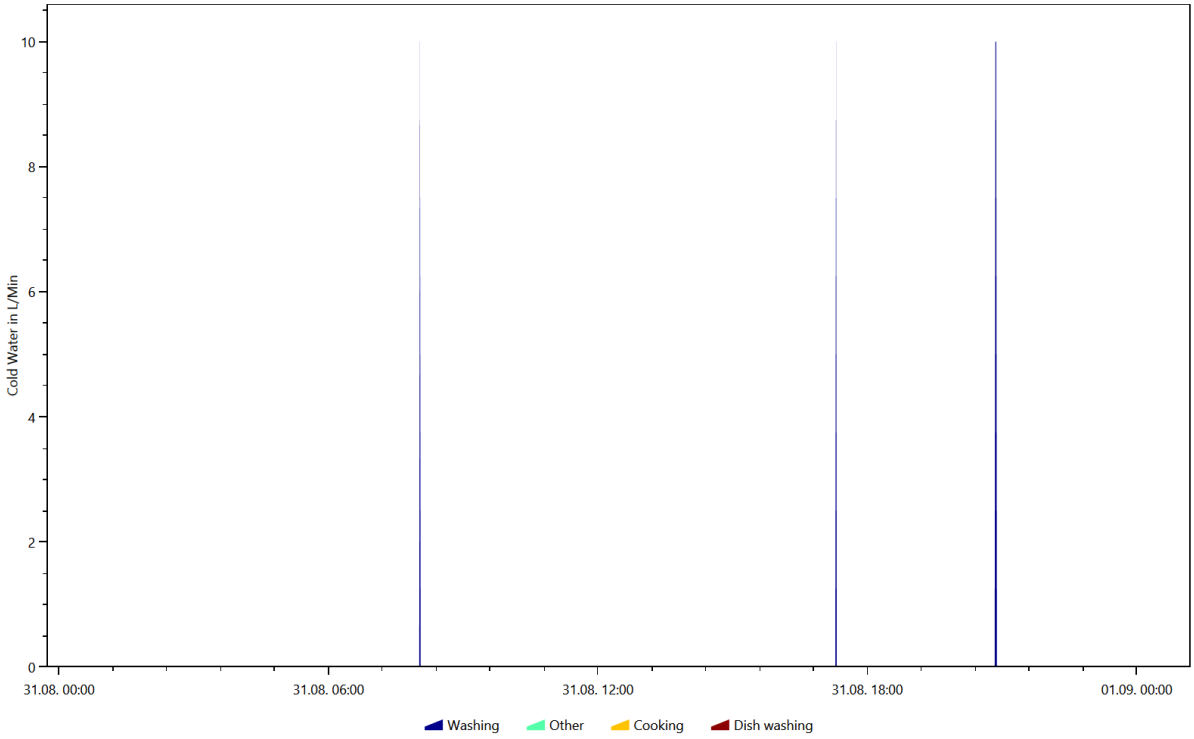
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.3.11



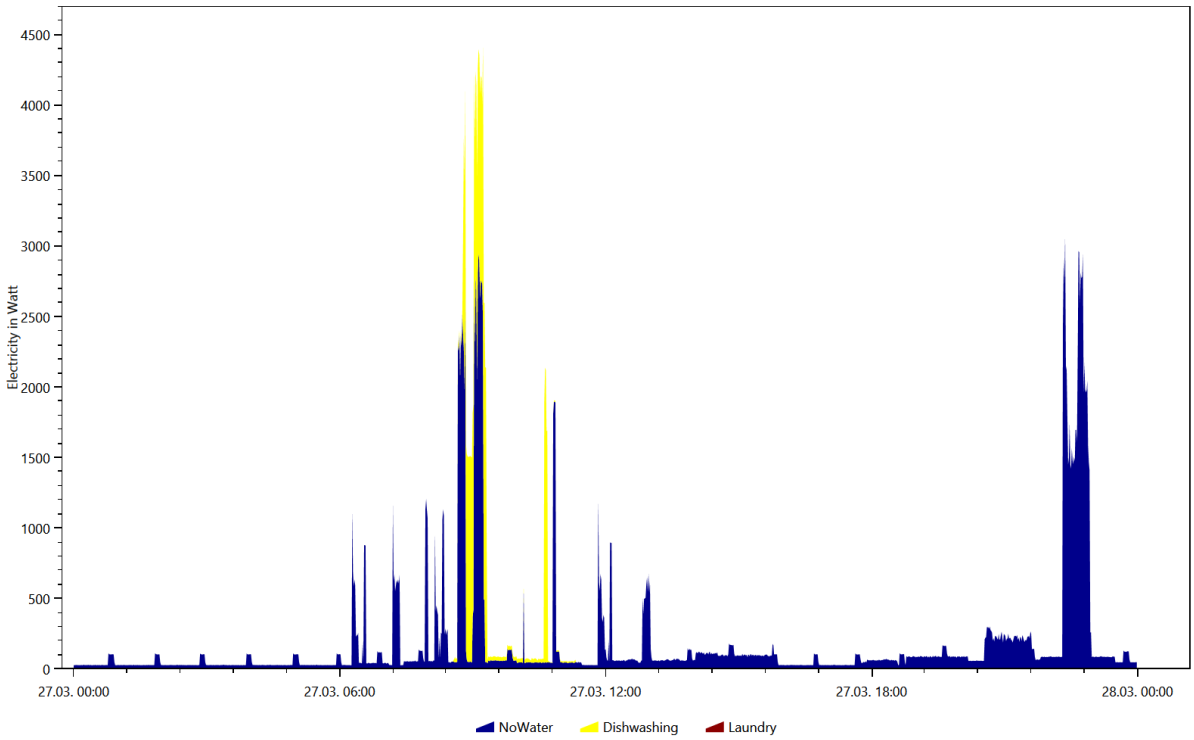
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.6.22



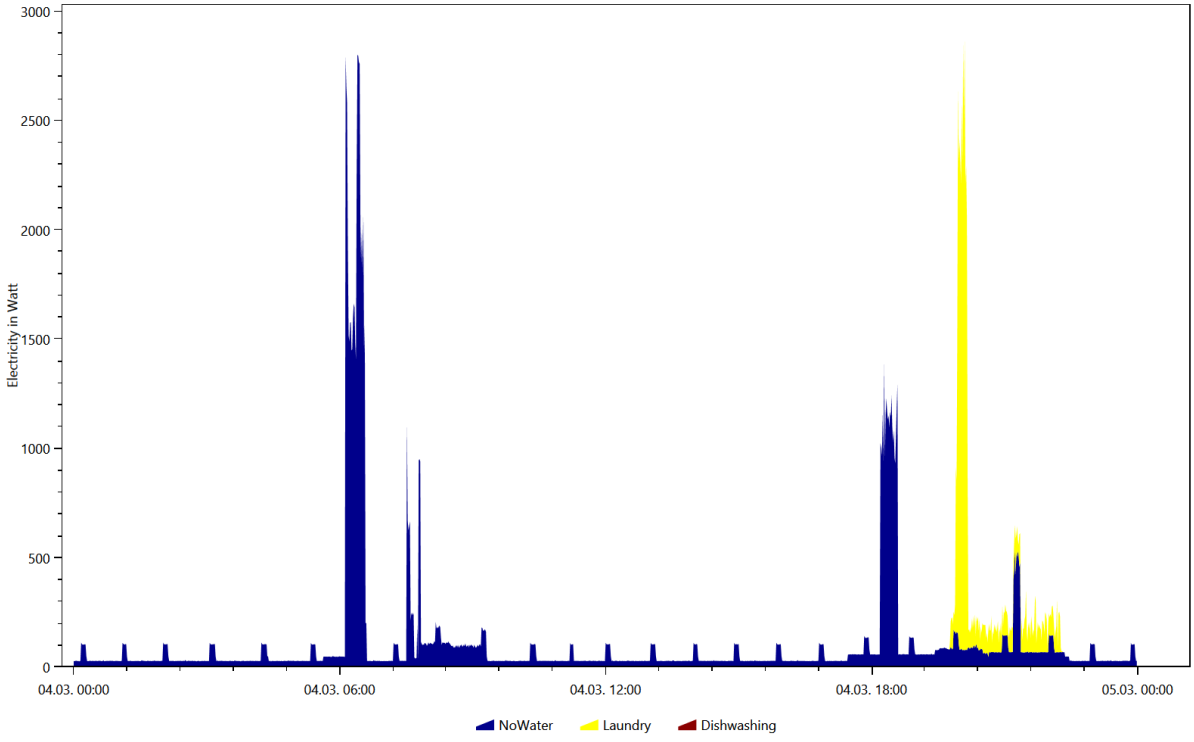
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.8.31



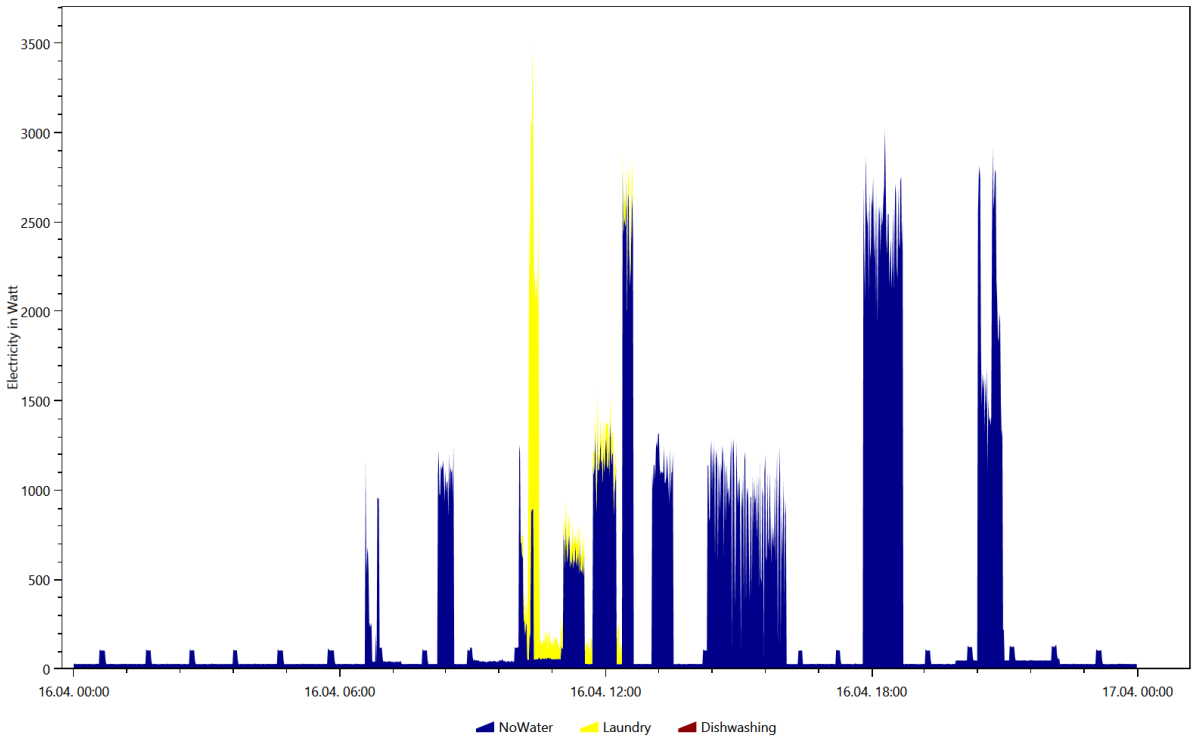
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.3.27



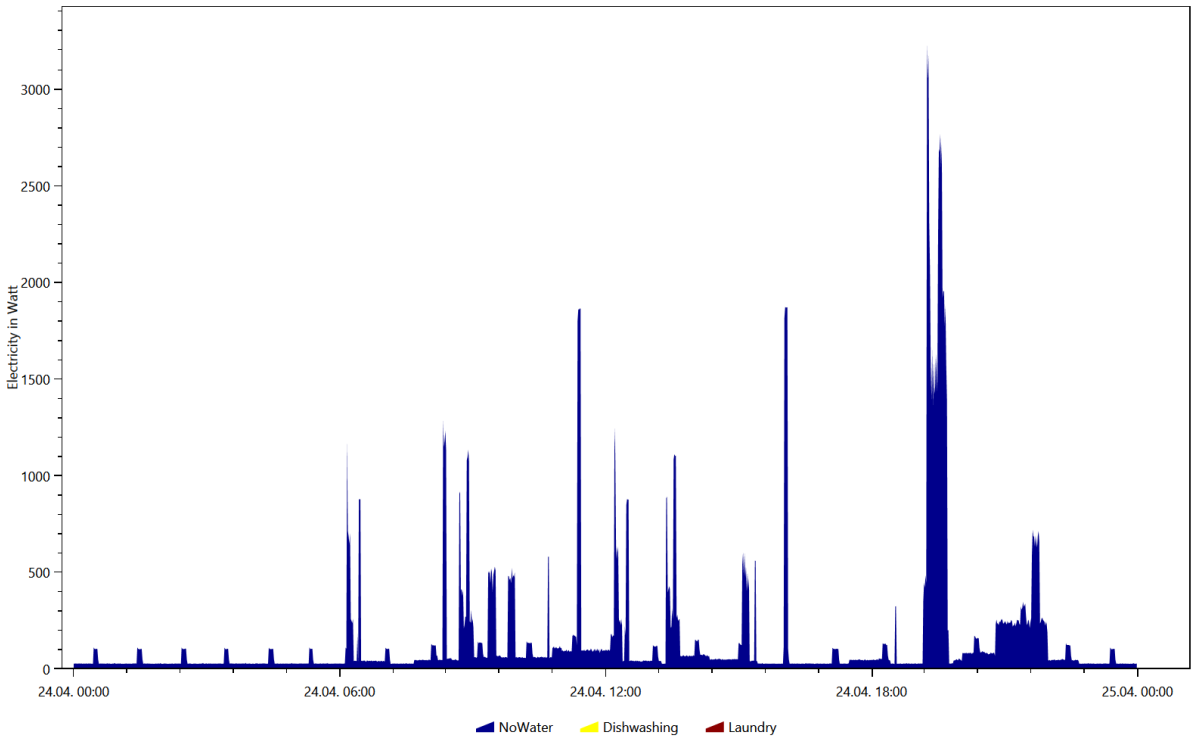
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.3.4



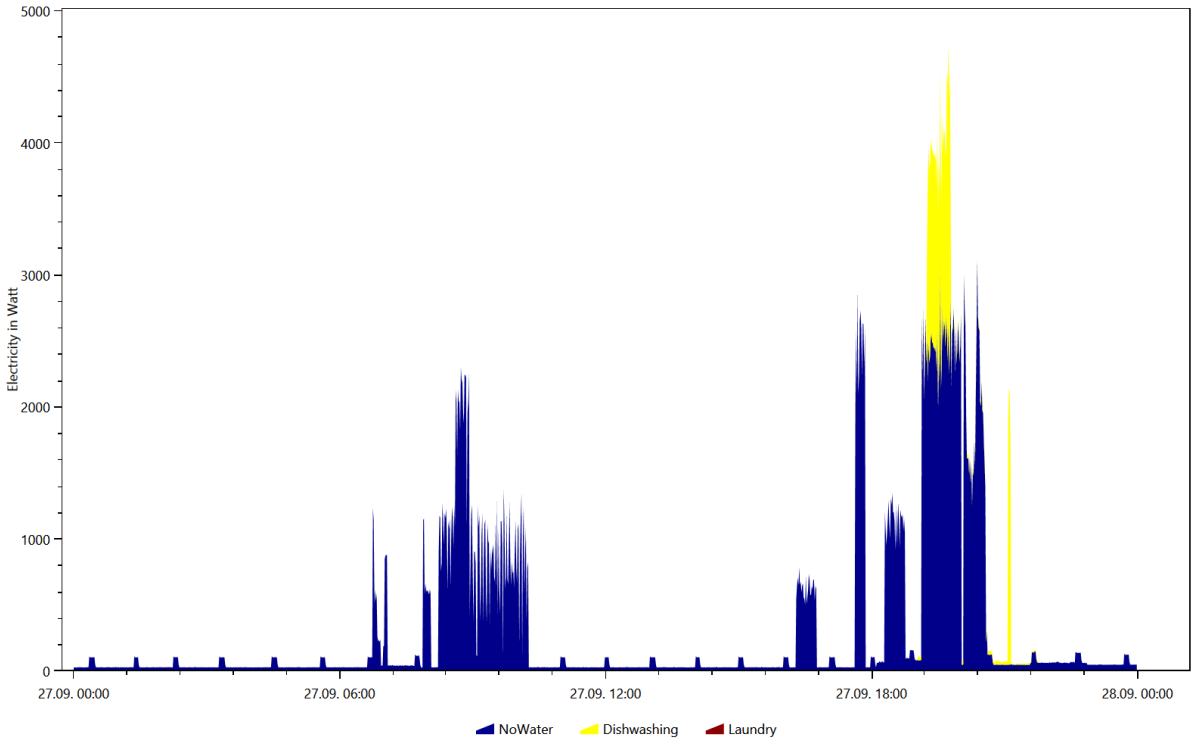
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.4.16



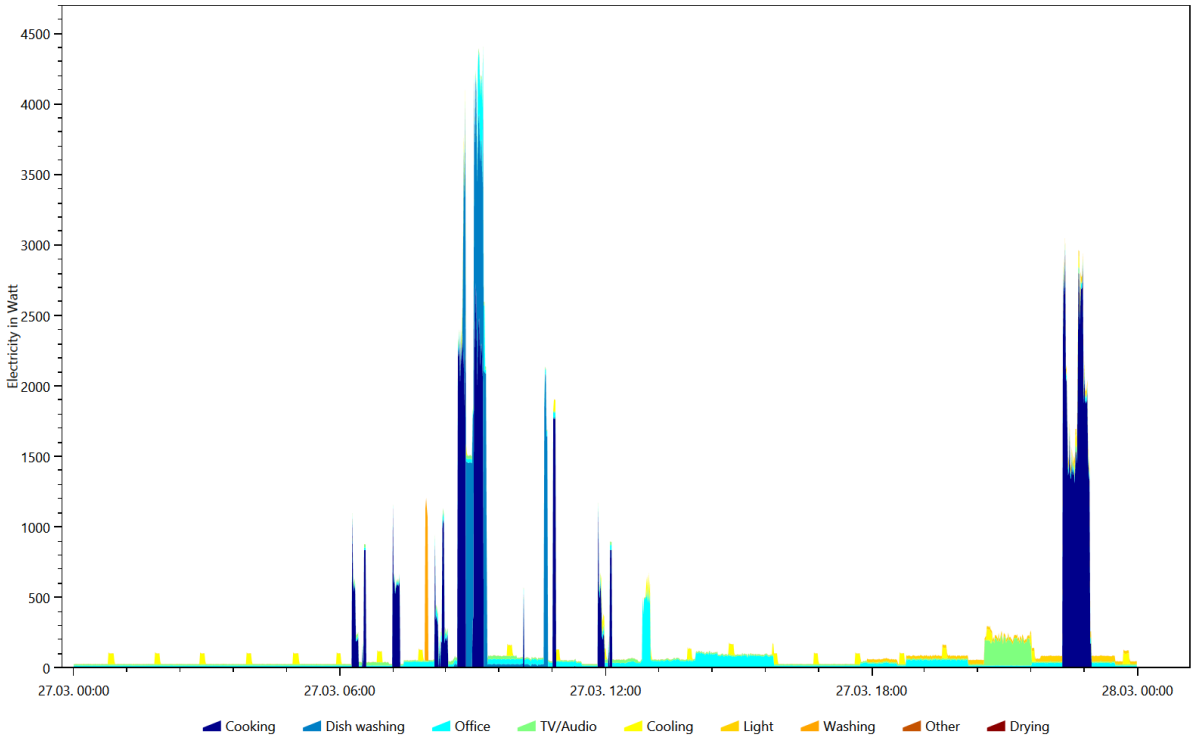
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.4.24



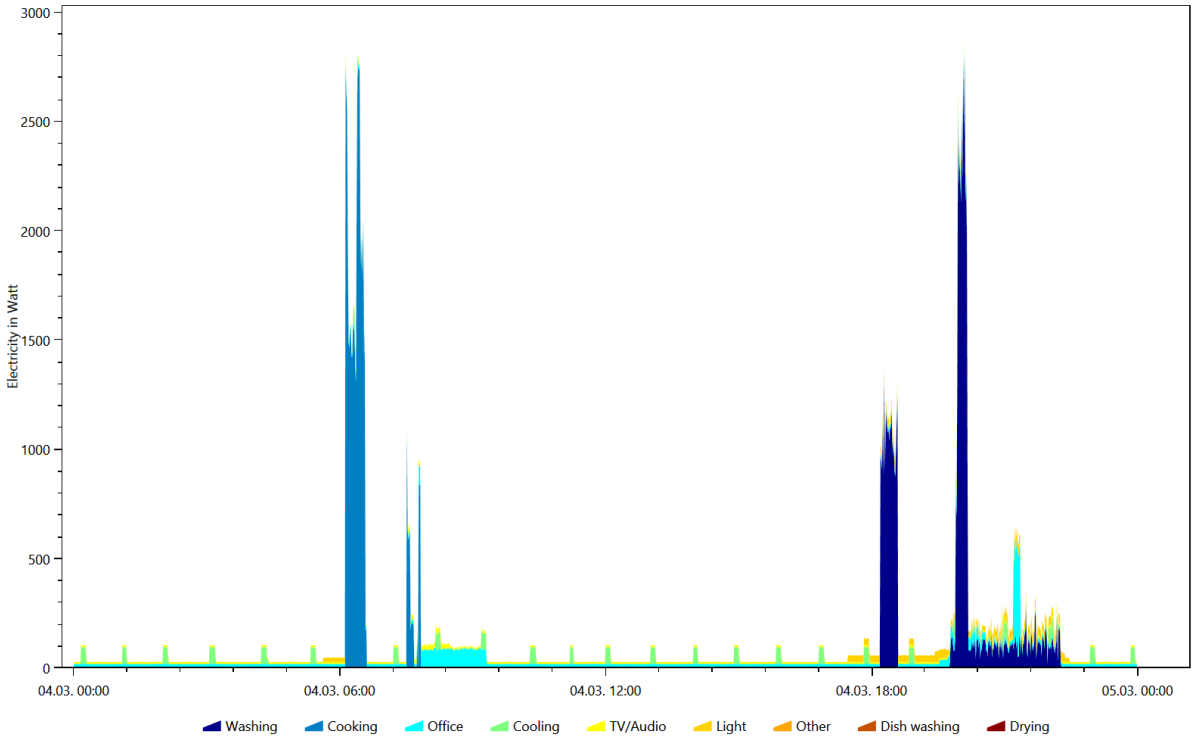
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.9.27



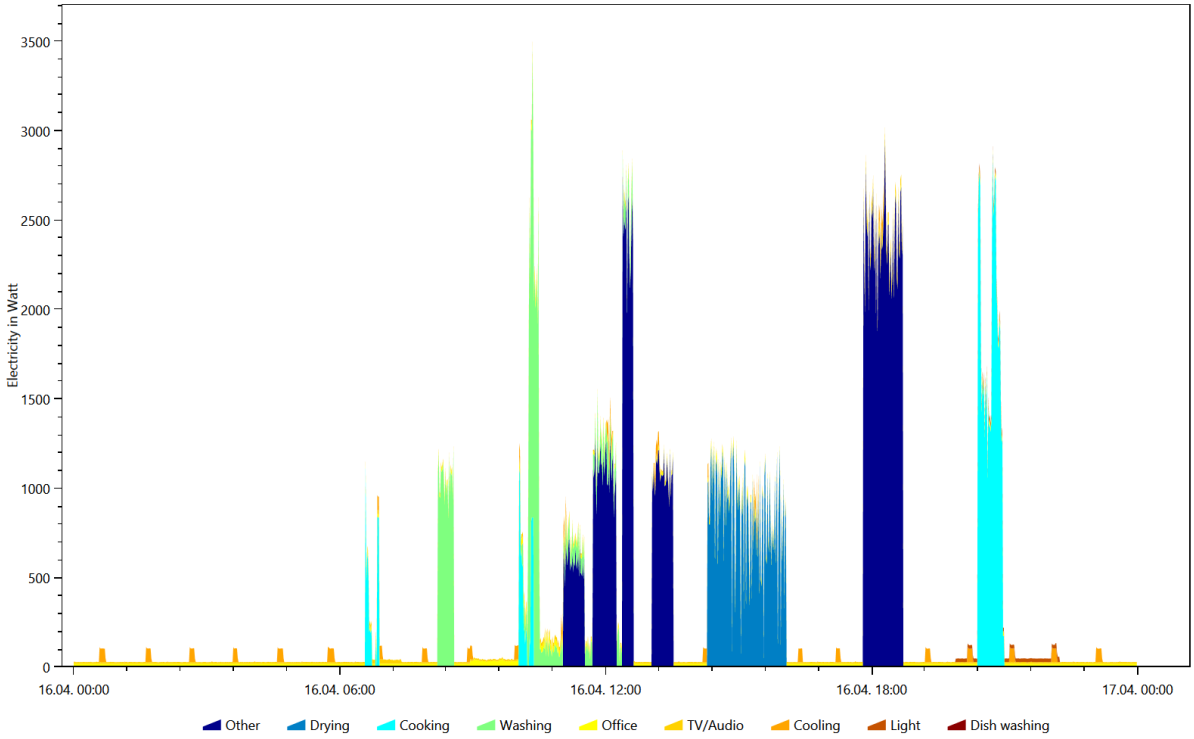
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.3.27



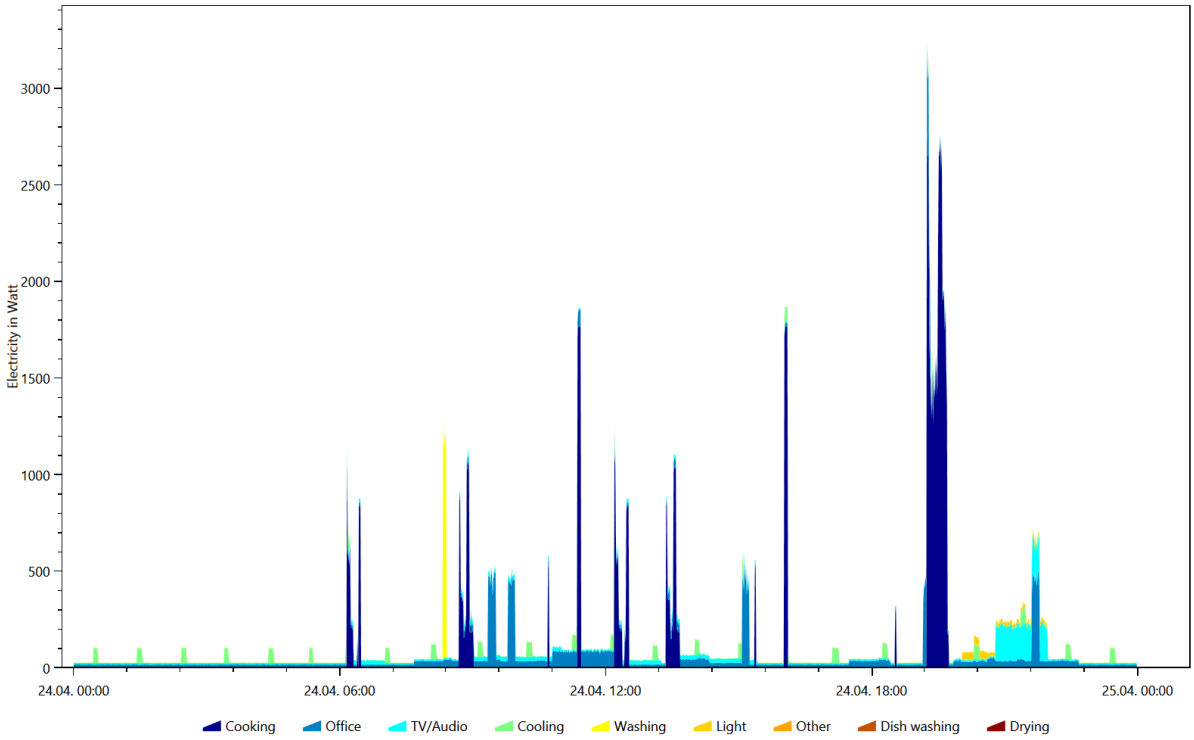
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.3.4



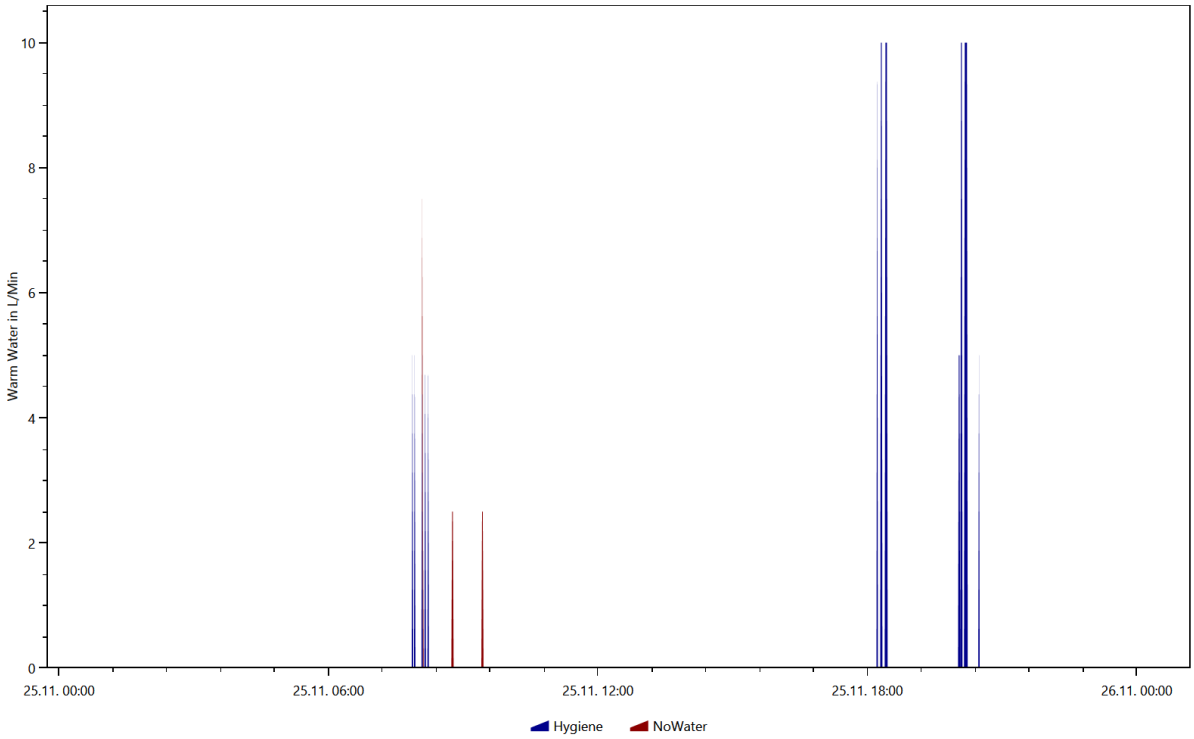
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.4.16



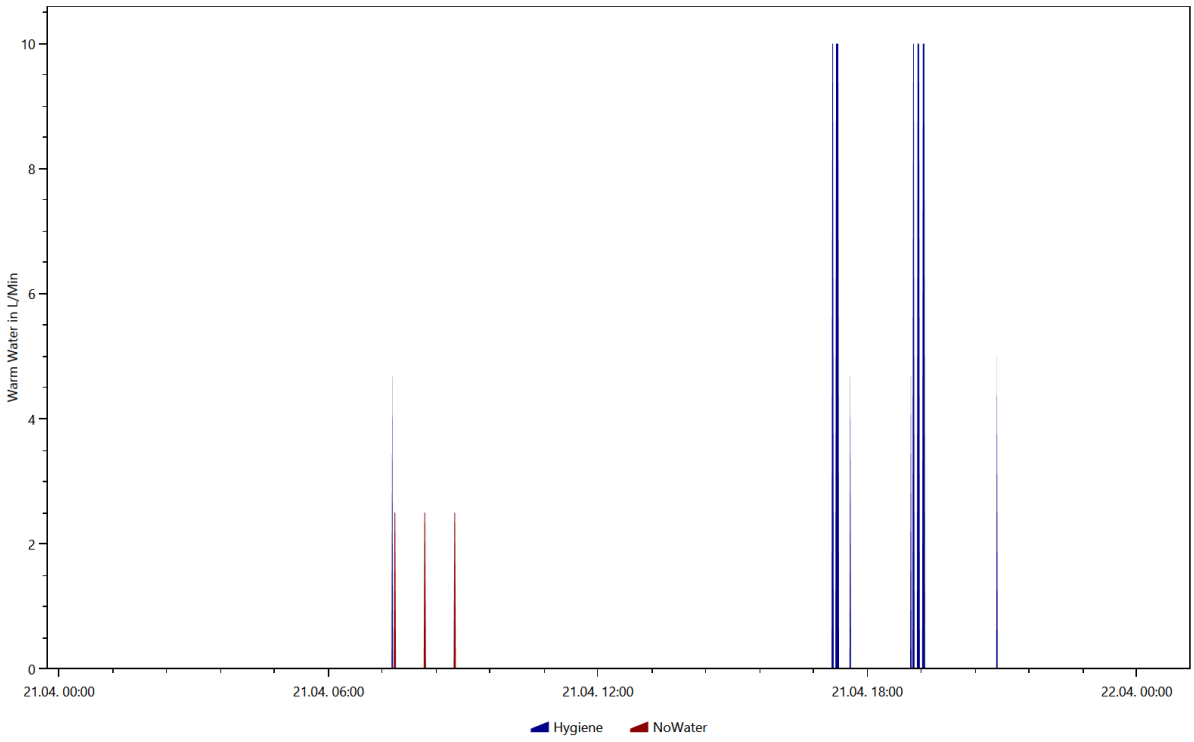
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.4.24



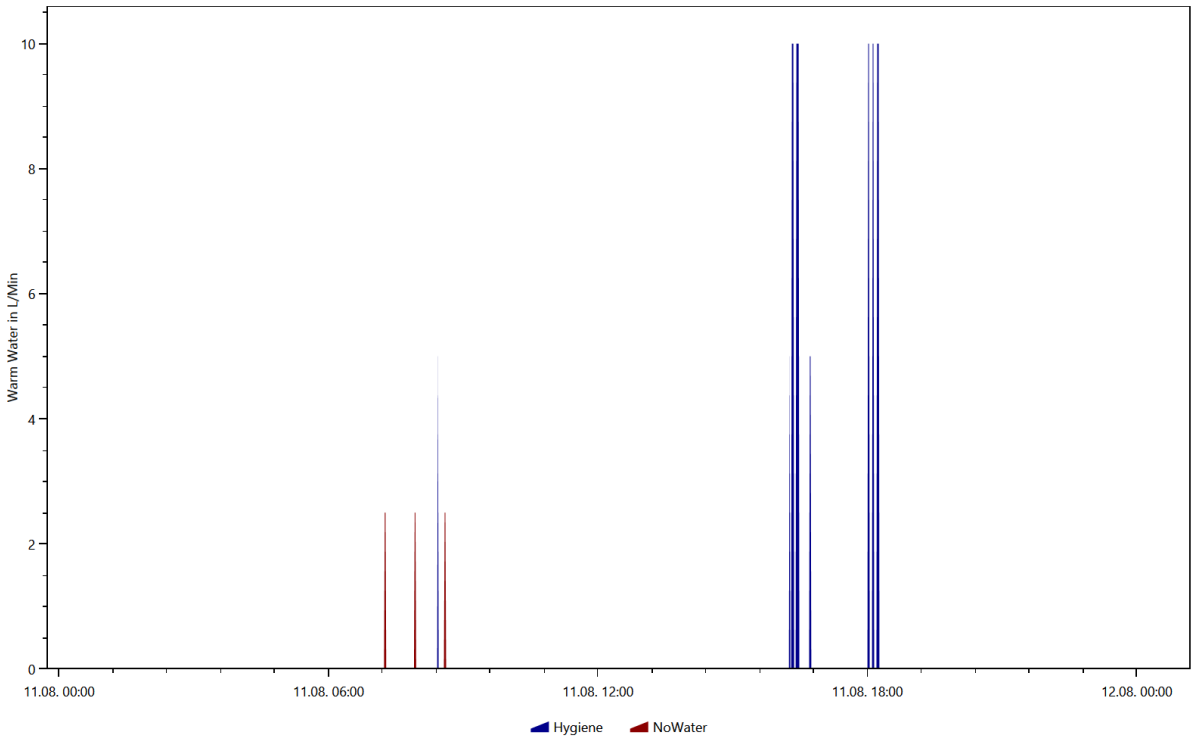
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.11.25



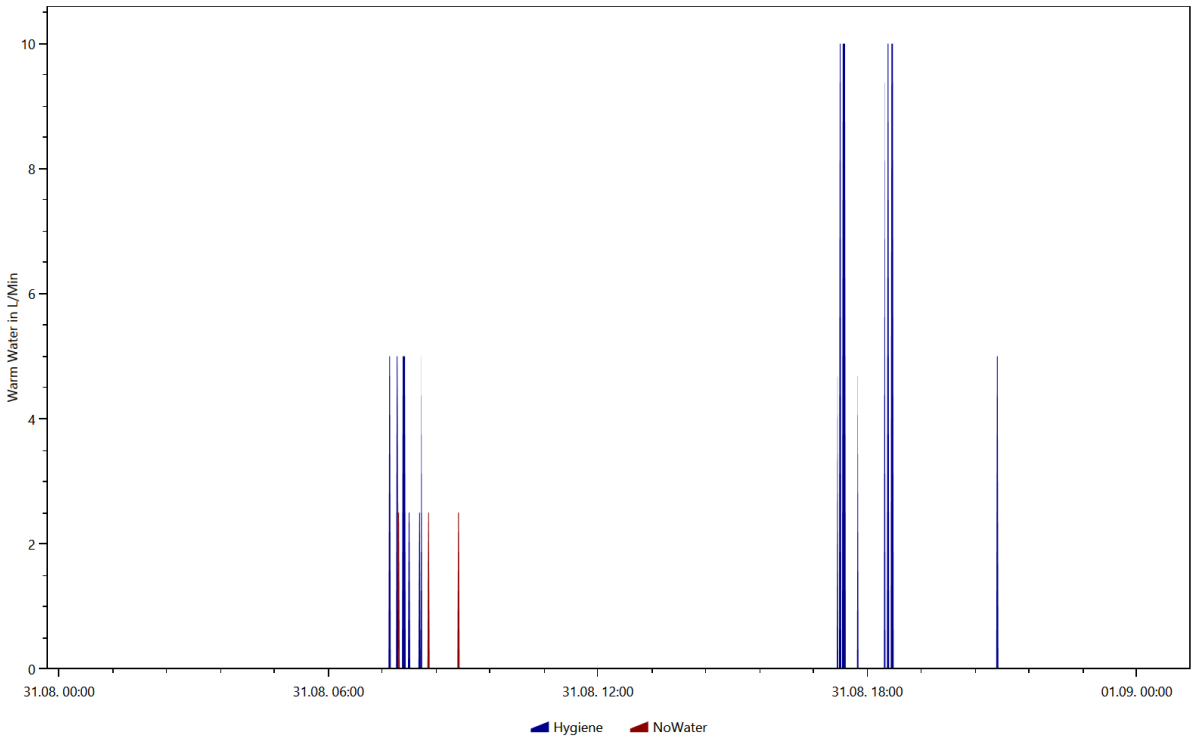
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.4.21



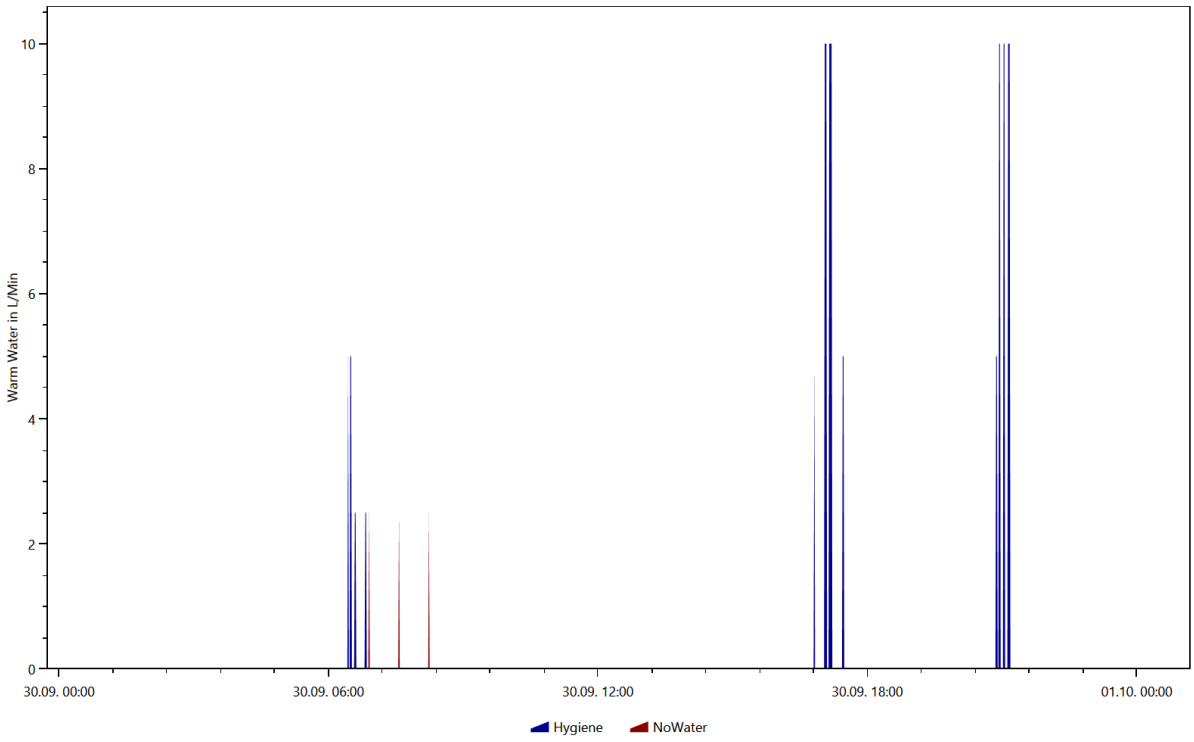
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.11



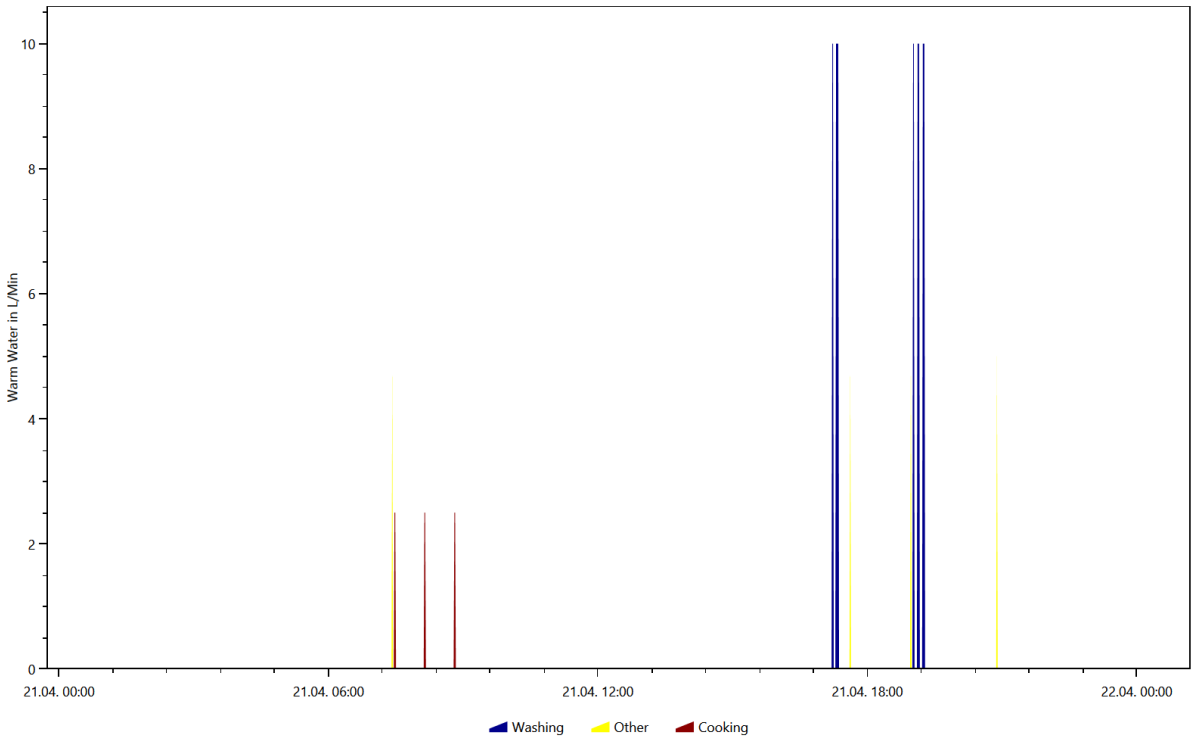
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.31



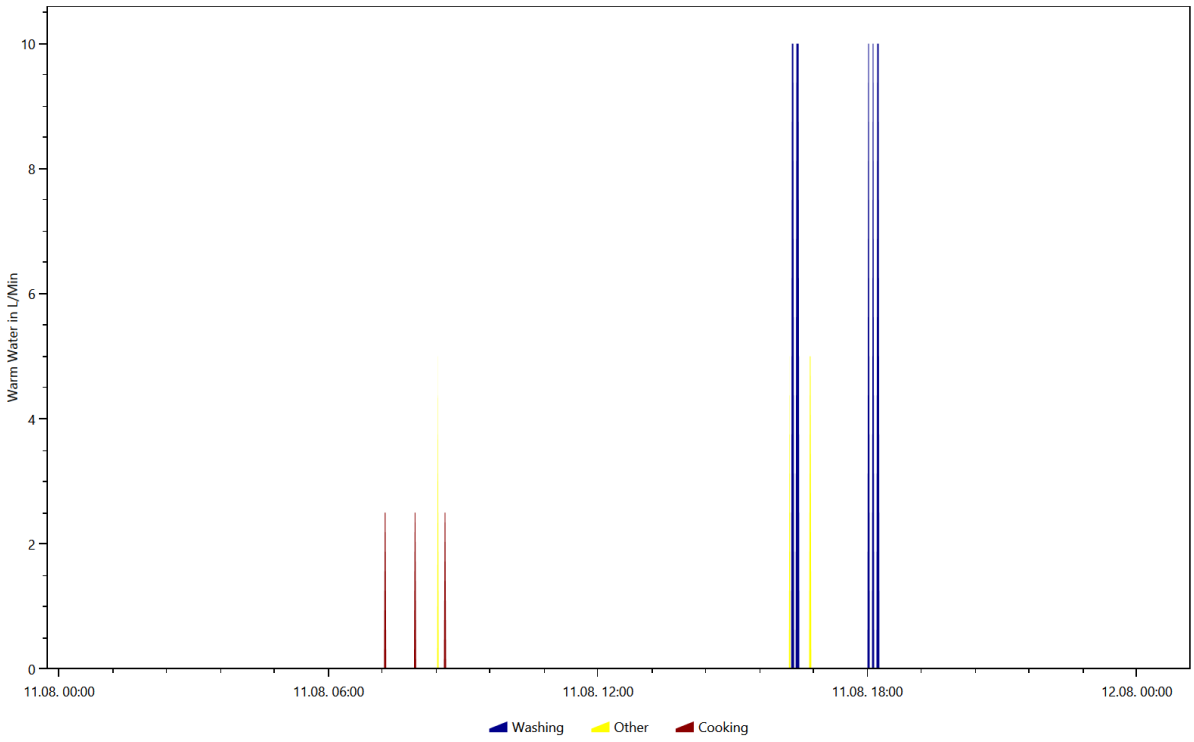
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.9.30



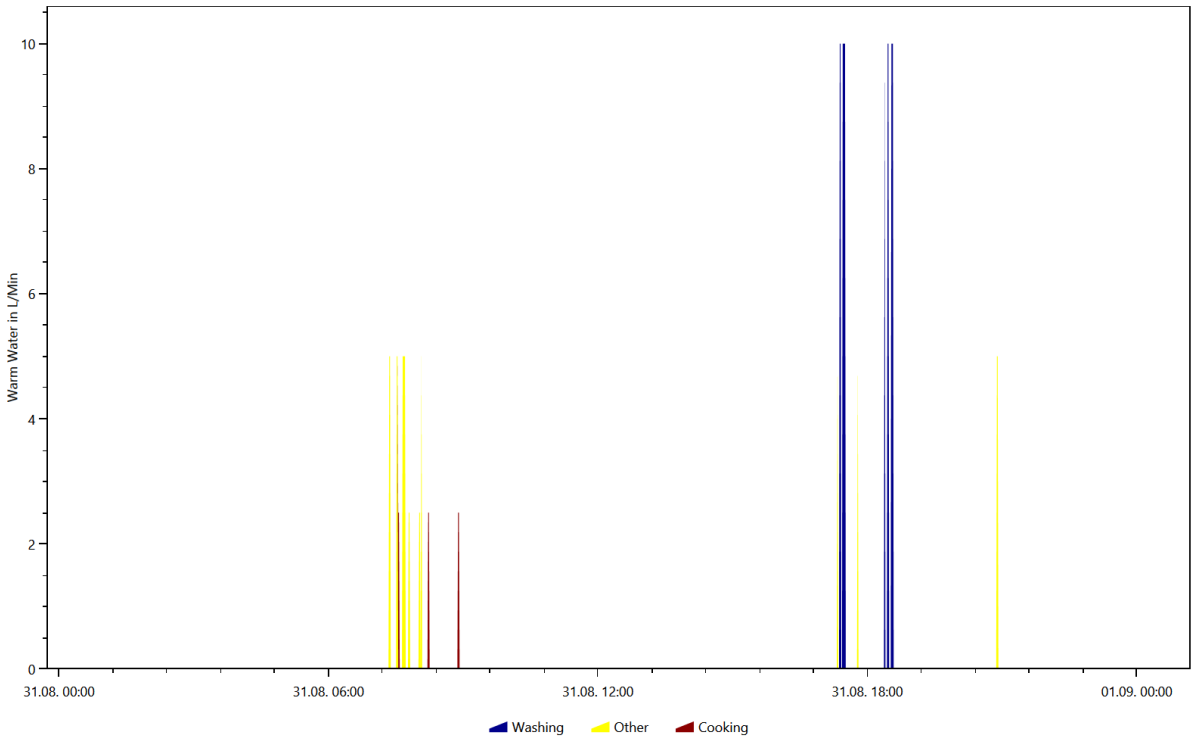
Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.4.21



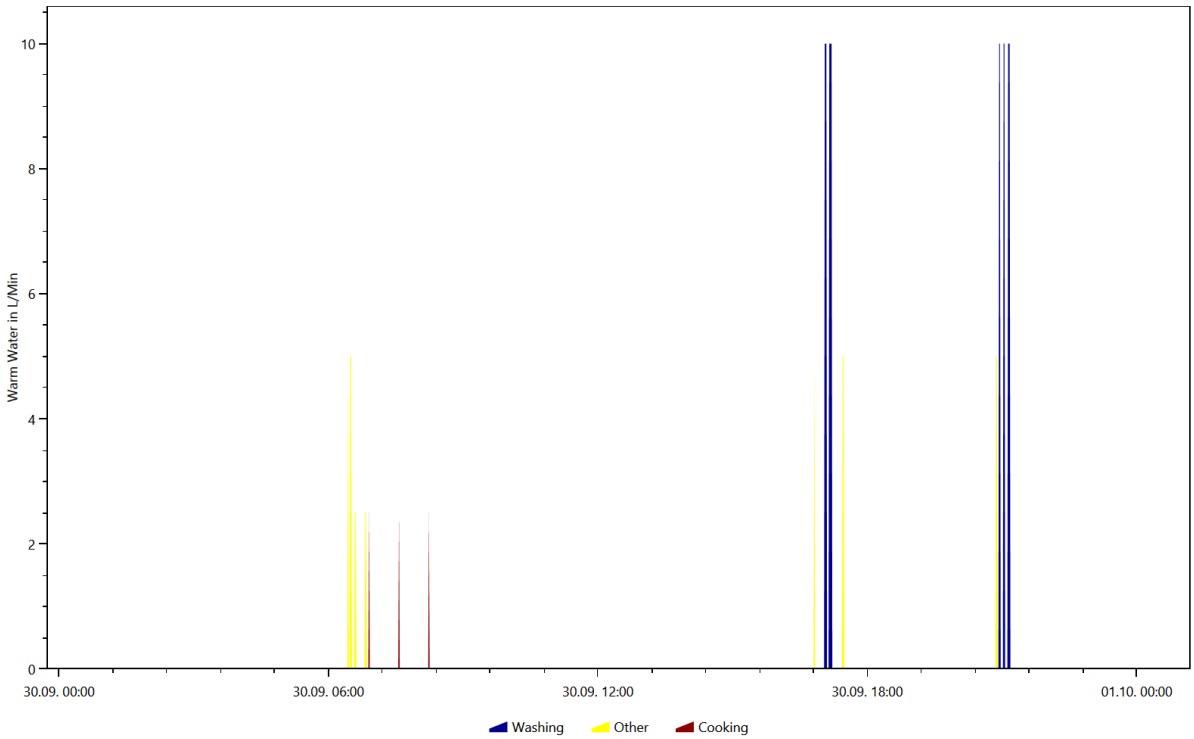
Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.8.11



Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.8.31



Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.9.30

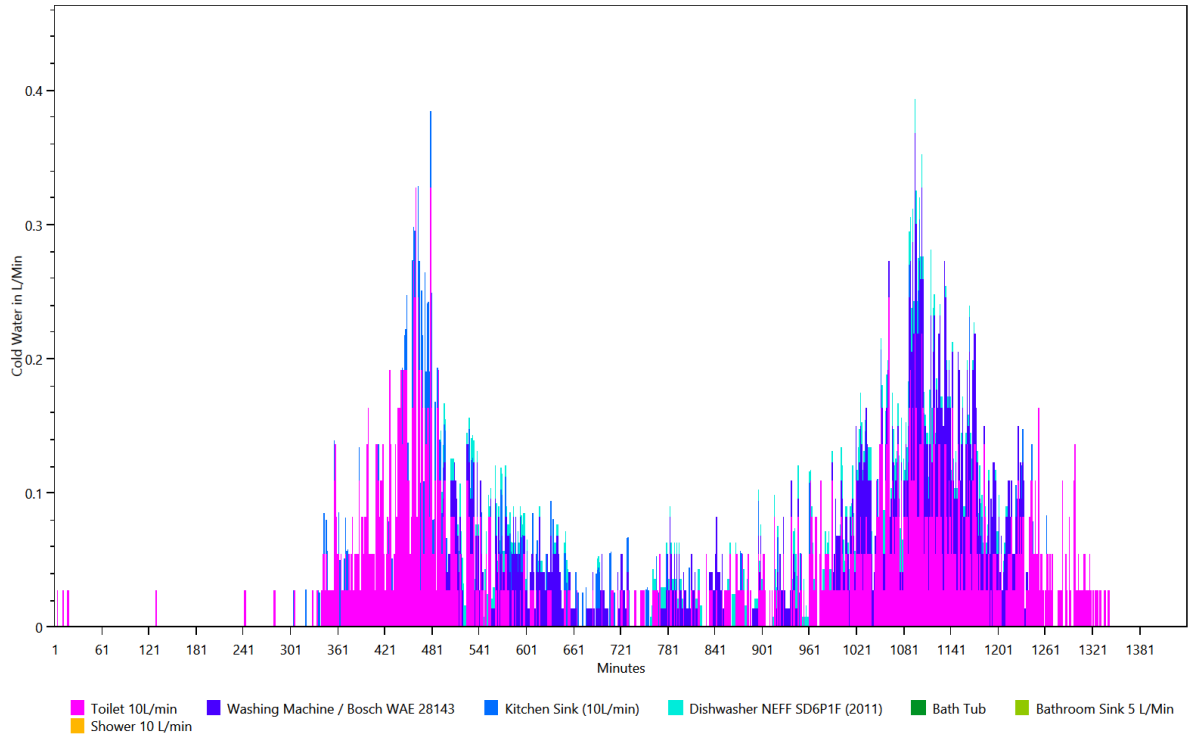


Overview of the time and power of the use per load type per device

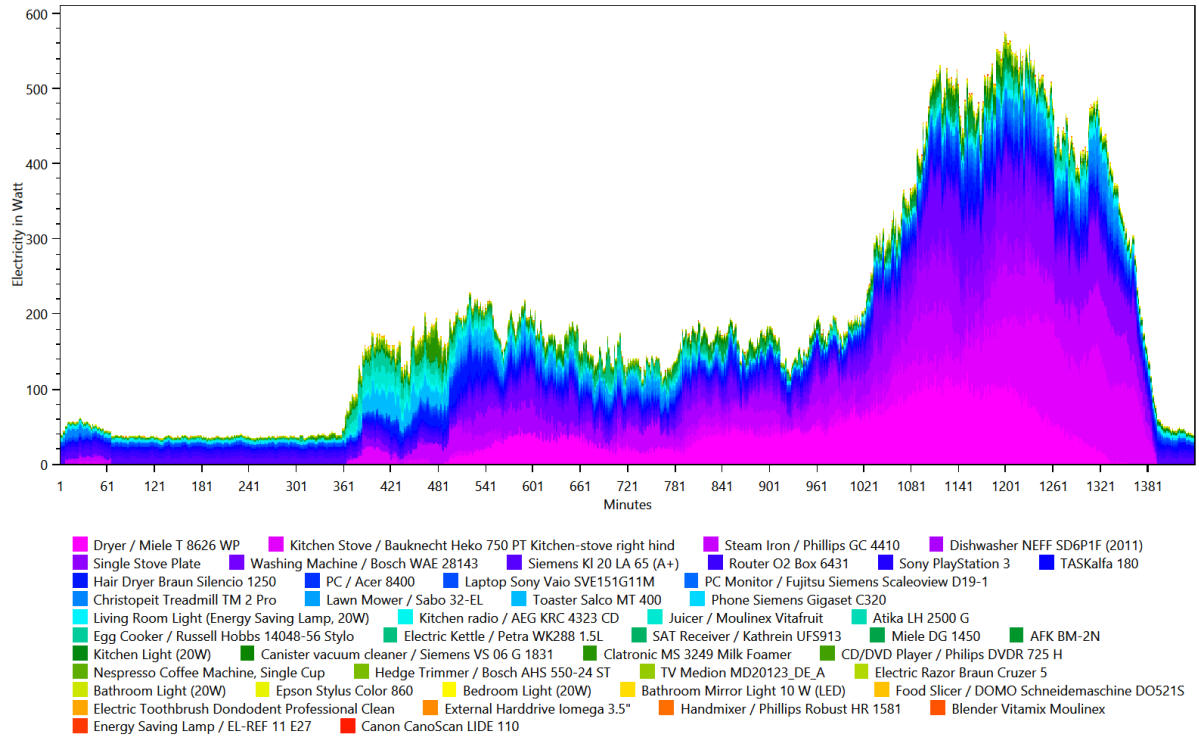
This is made from the files starting with: TimeOfUseEnergyProfiles

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

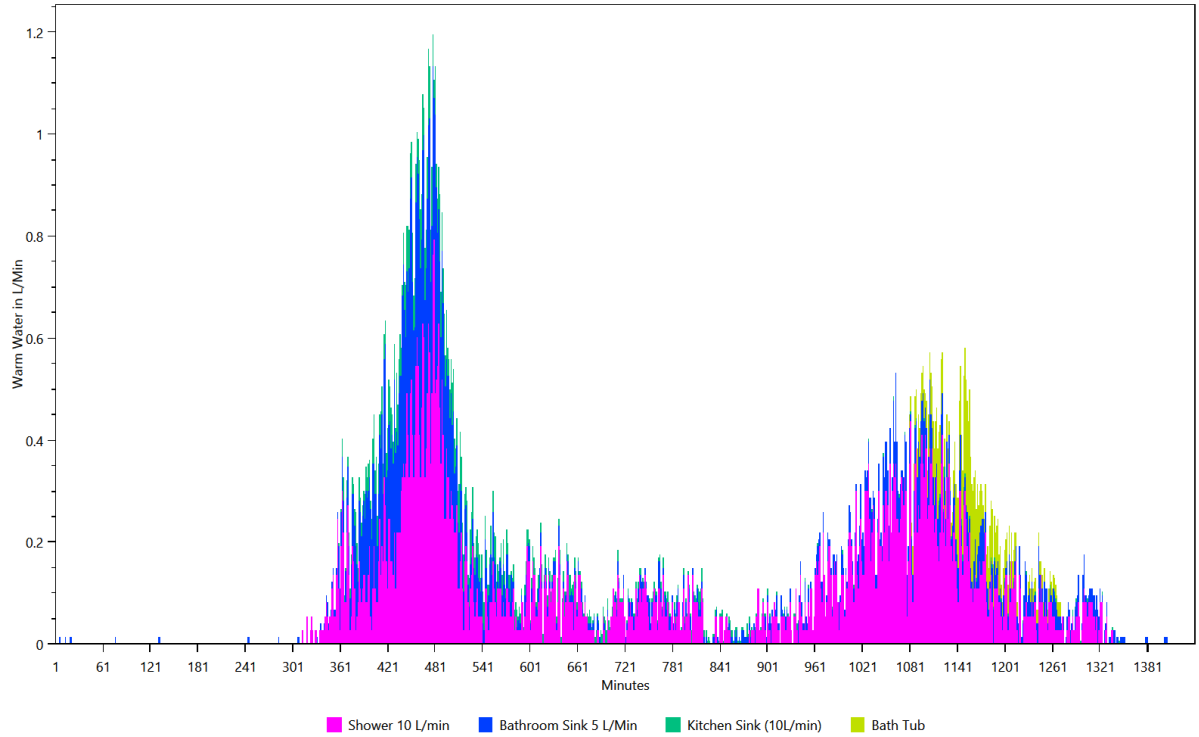
Cold Water



Electricity



Warm Water

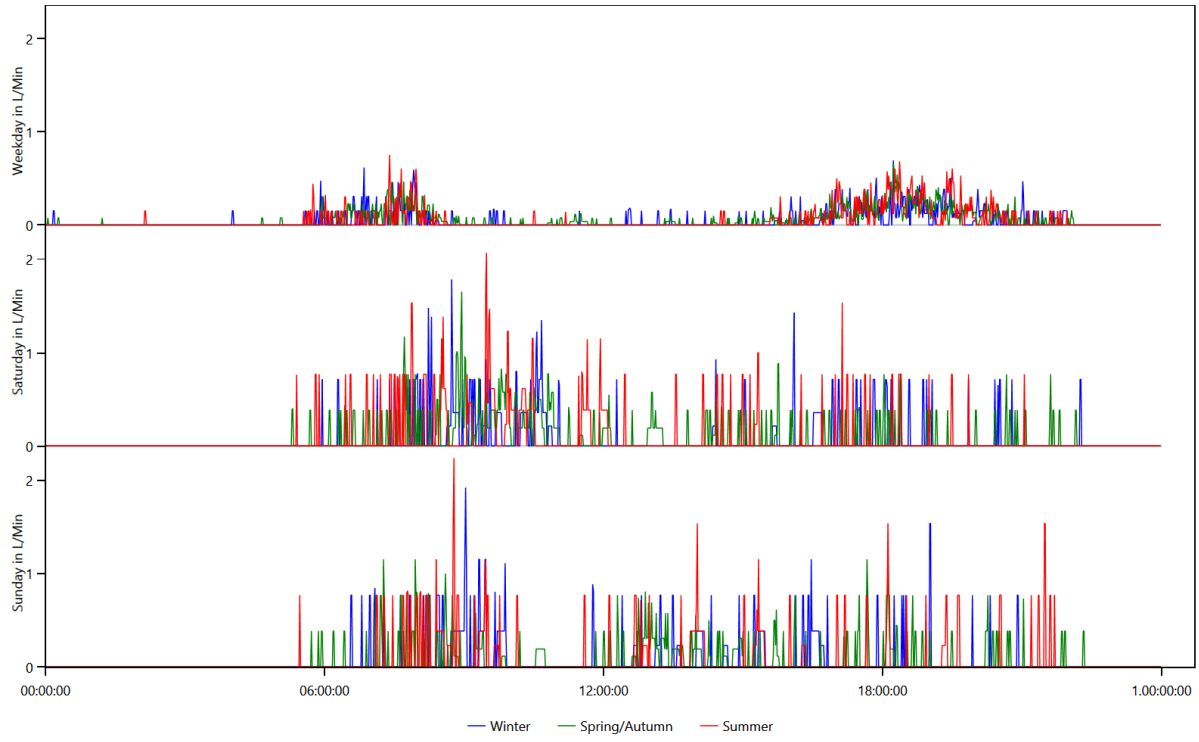


Energy use per load type during different seasons, split by weekday/saturday/sunday

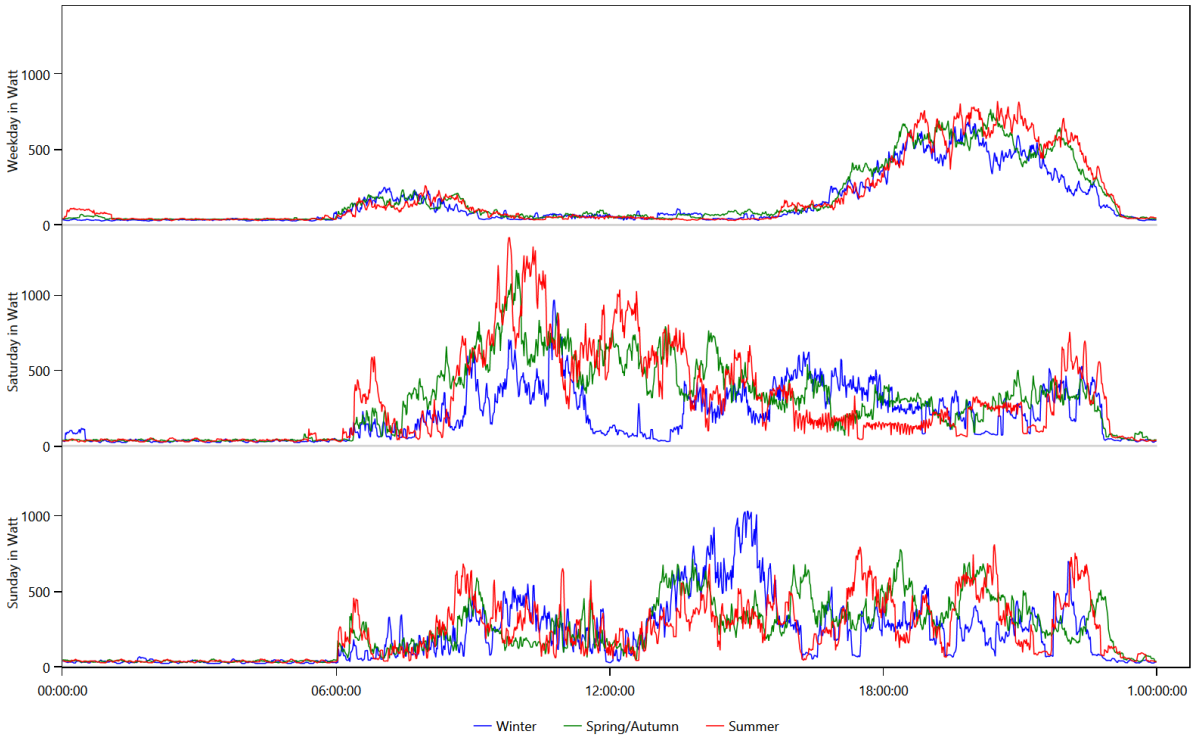
This is made from the files starting with: WeekdayProfiles

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

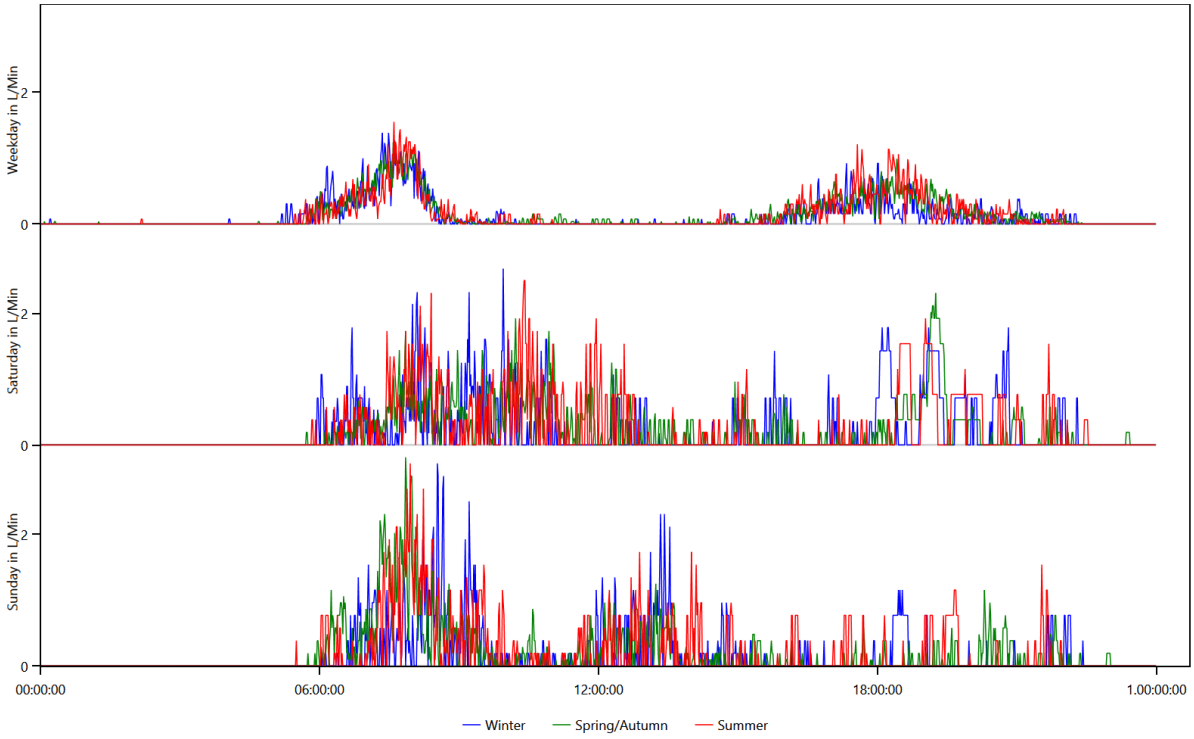
Cold Water



Electricity



Warm Water

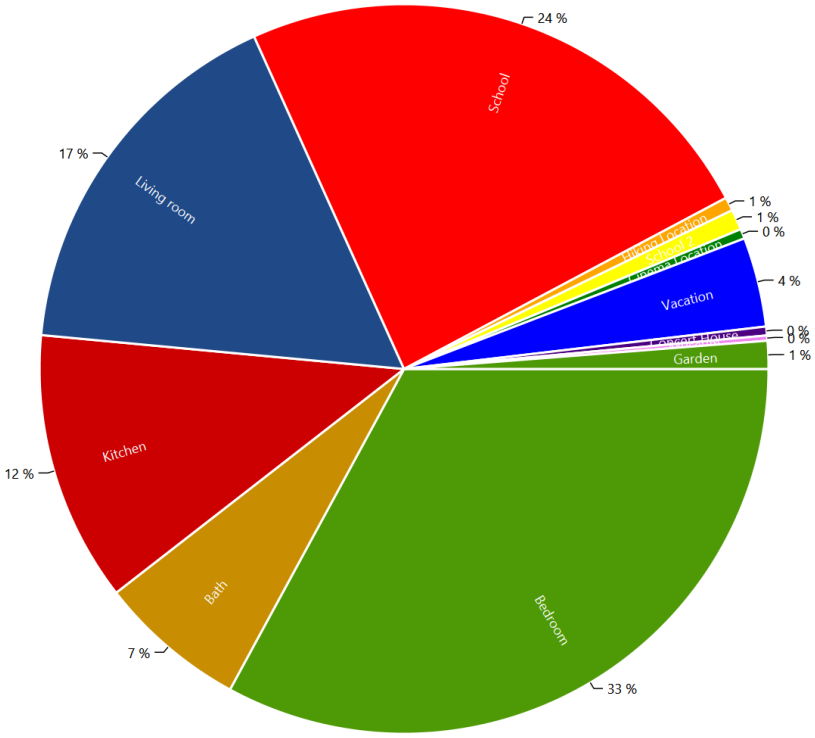


Location Distribution per Person

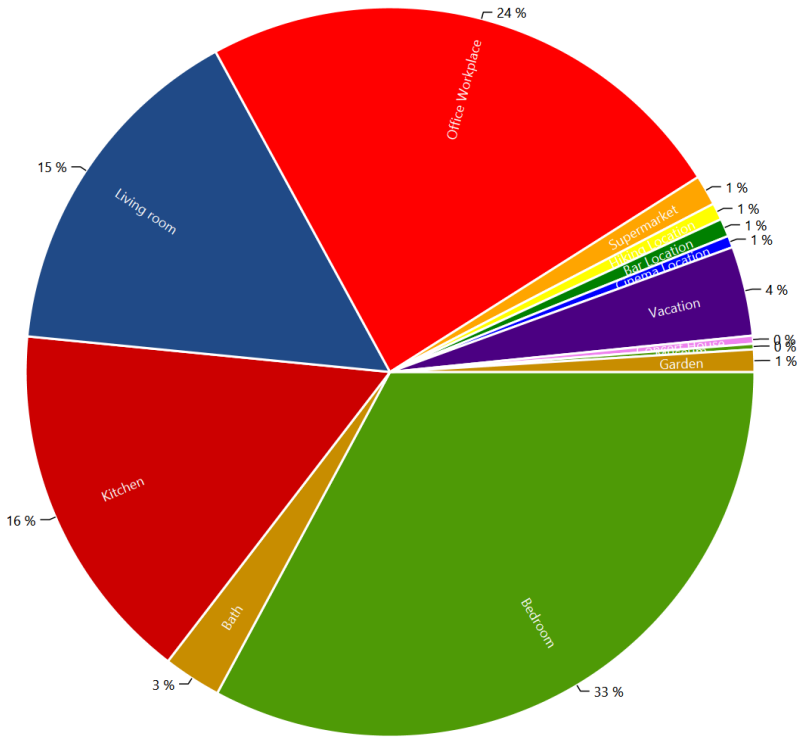
This is made from the files starting with: LocationStatistics

These charts show where the persons spend their time.

CHR02 Katee (37 Female)



CHR02 Tomi (38 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

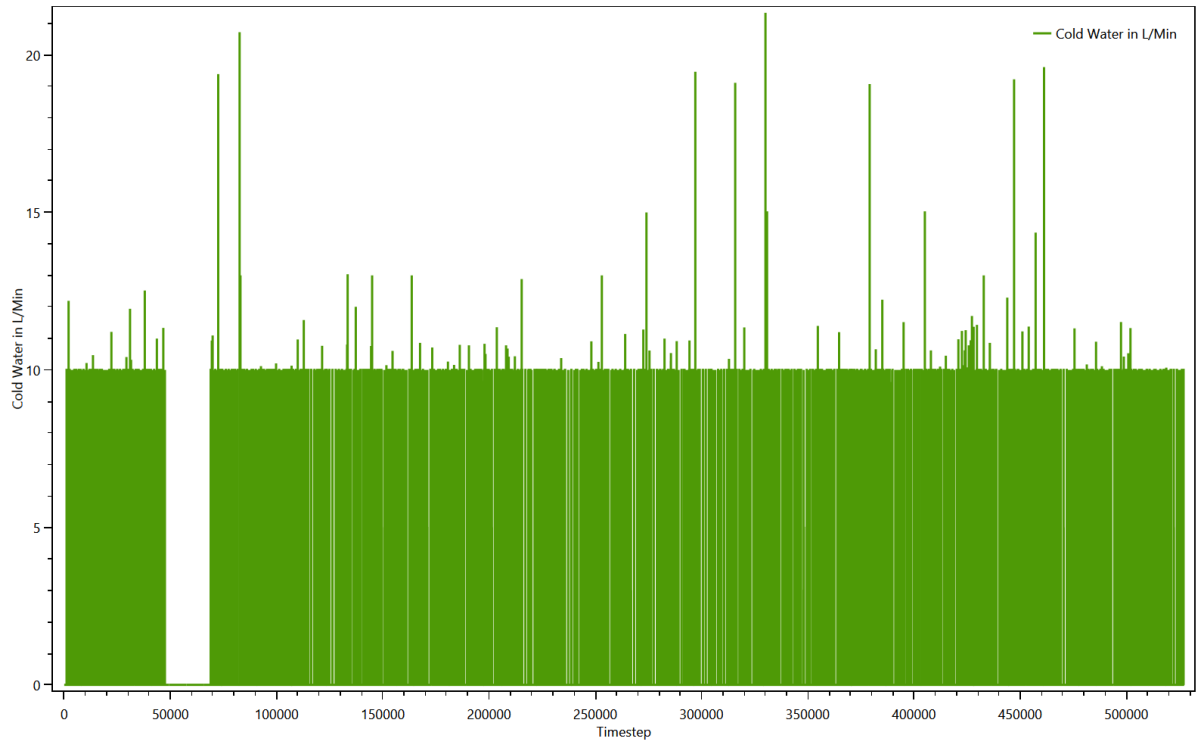
Time step;Calendertime;Person;Selected affordance;Affordance Category;Is Sick
0;01.01.2016 00:00;CHR02 Katee (37/Female);sleep bed 08 (08 h);sleep;False;
0;01.01.2016 00:00;CHR02 Tomi (38/Male);use the computer for recreation (2 h);Active Entertainment (Computer, Internet etc);False;
25;01.01.2016 00:25;CHR02 Tomi (38/Male);sleep bed 02 (08 h);sleep;False;
377;01.01.2016 06:17;CHR02 Katee (37/Female);get ready in the morning (women);hygiene;False;
399;01.01.2016 06:39;CHR02 Katee (37/Female);eat breakfast (1 h);cooking;False;
410;01.01.2016 06:50;CHR02 Tomi (38/Male);eat a cooked meal (interrupting) (eat breakfast (1 h));cooking;False;
463;01.01.2016 07:43;CHR02 Katee (37/Female);use the laptop (1 h);Active Entertainment (Computer, Internet etc);False;
463;01.01.2016 07:43;CHR02 Tomi (38/Male);sleep bed 02 (08 h);sleep;False;
529;01.01.2016 08:49;CHR02 Katee (37/Female);work as teacher ;work;False;
561;01.01.2016 09:21;CHR02 Tomi (38/Male);work at the office from 8:00 (9 h);work;False;
1117;01.01.2016 18:37;CHR02 Katee (37/Female);go to the toilet;hygiene;False;
1123;01.01.2016 18:43;CHR02 Katee (37/Female);take a shower with hair washing (women) (20 min hair drying);hygiene;False;
1149;01.01.2016 19:09;CHR02 Tomi (38/Male);go to the toilet;hygiene;False;
1155;01.01.2016 19:15;CHR02 Tomi (38/Male);run the dishwasher (triggered);cleaning;False;
1170;01.01.2016 19:30;CHR02 Tomi (38/Male);take a shower (men);hygiene;False;
1186;01.01.2016 19:46;CHR02 Tomi (38/Male);do laundry at 30°C (by variable);cleaning;False;
1189;01.01.2016 19:49;CHR02 Katee (37/Female);play computer games;Active Entertainment (Computer, Internet etc);False;
1199;01.01.2016 19:59;CHR02 Tomi (38/Male);cook together at all times;cooking;False;
1270;01.01.2016 21:10;CHR02 Katee (37/Female);cook together (all the time) (cook together at all times);cooking;False;

Sum Profiles

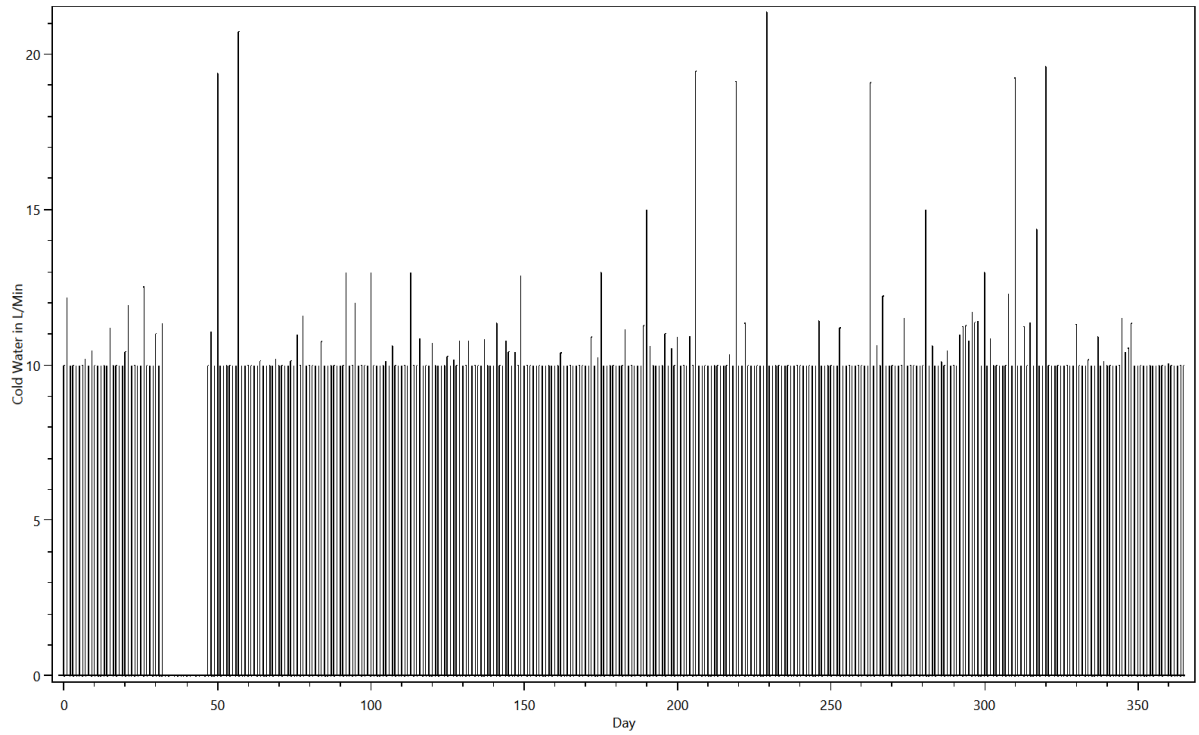
This is made from the files starting with: SumProfiles

This shows the energy use during the simulation.

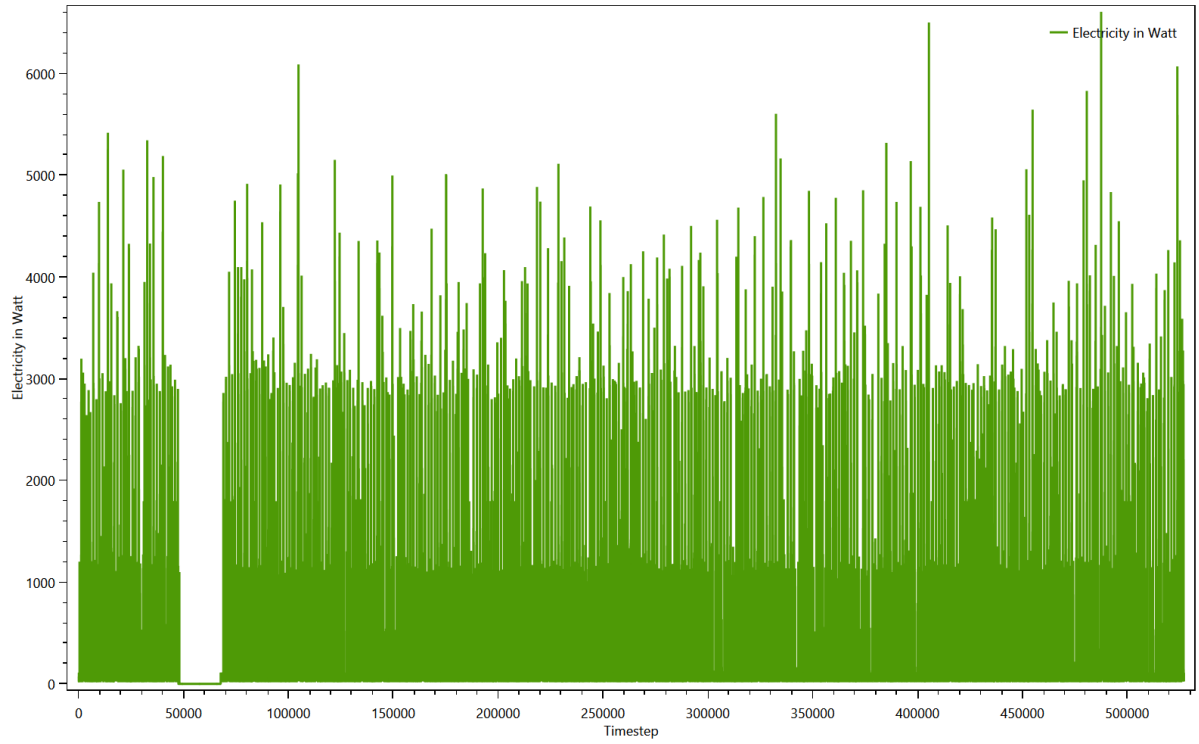
Summed up curve for Cold Water from SumProfiles.Cold Water.png



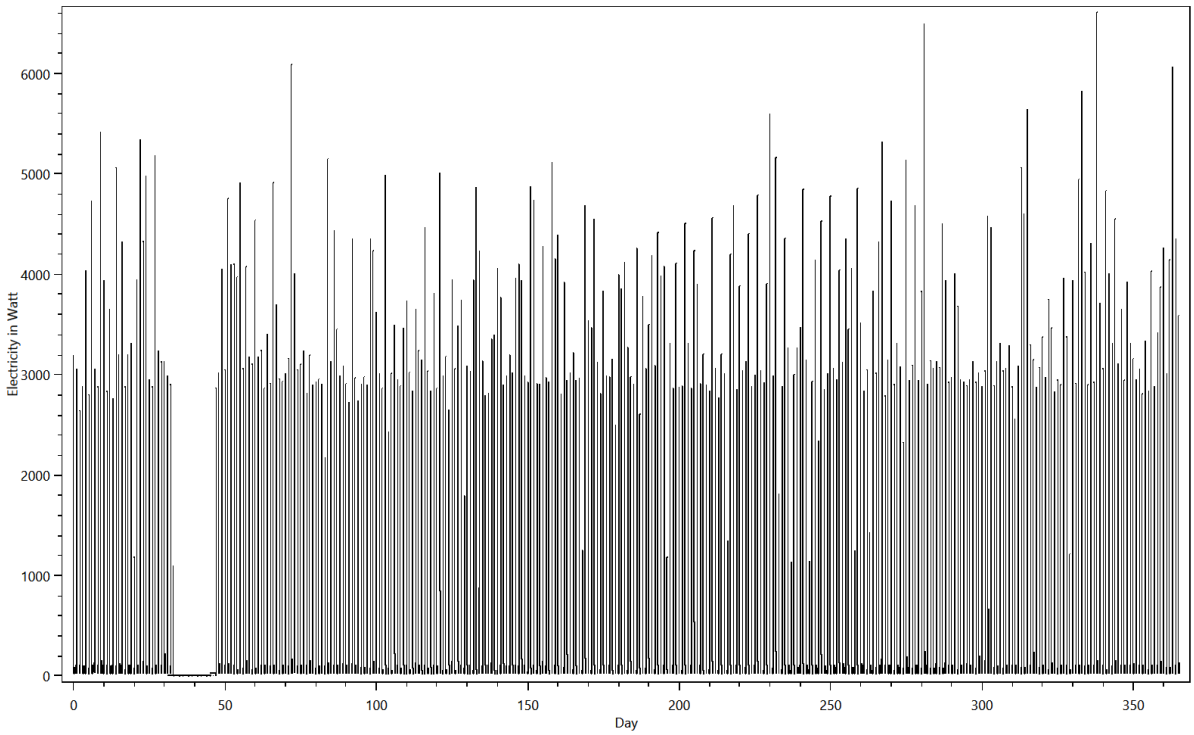
Summed up curve for Cold WaterMinMax from SumProfiles.Cold WaterMinMax..png



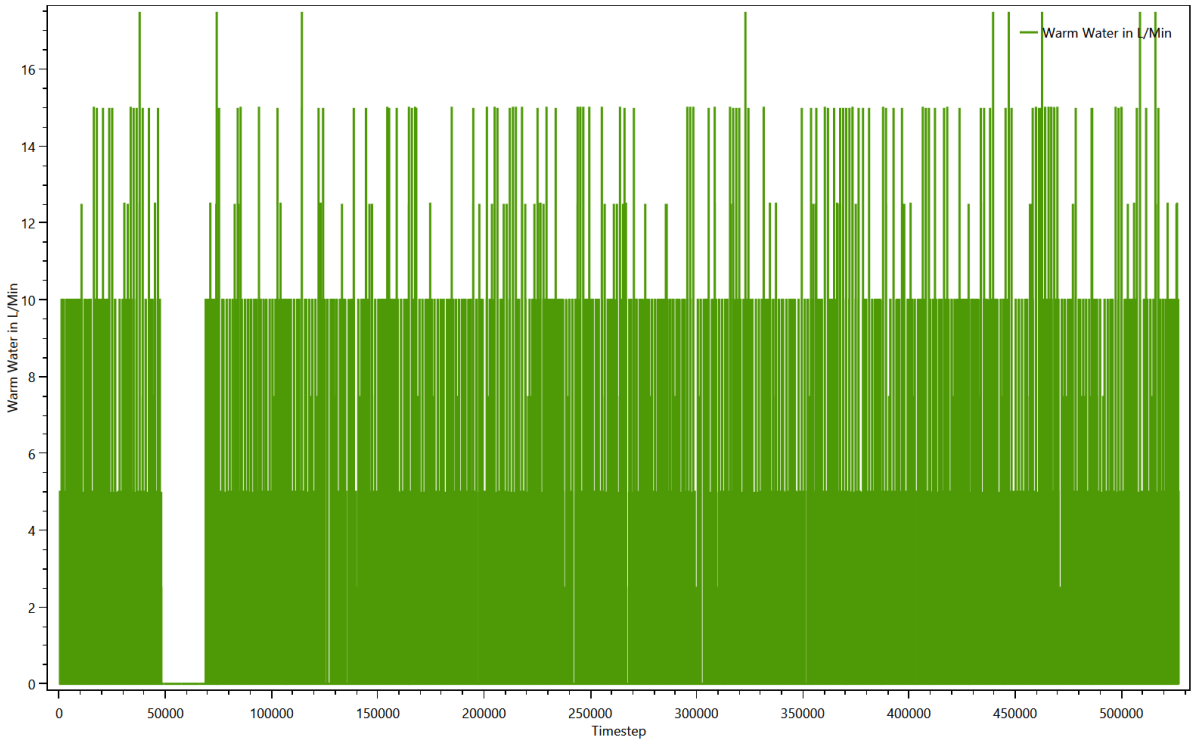
Summed up curve for Electricity from SumProfiles.Electricity.png



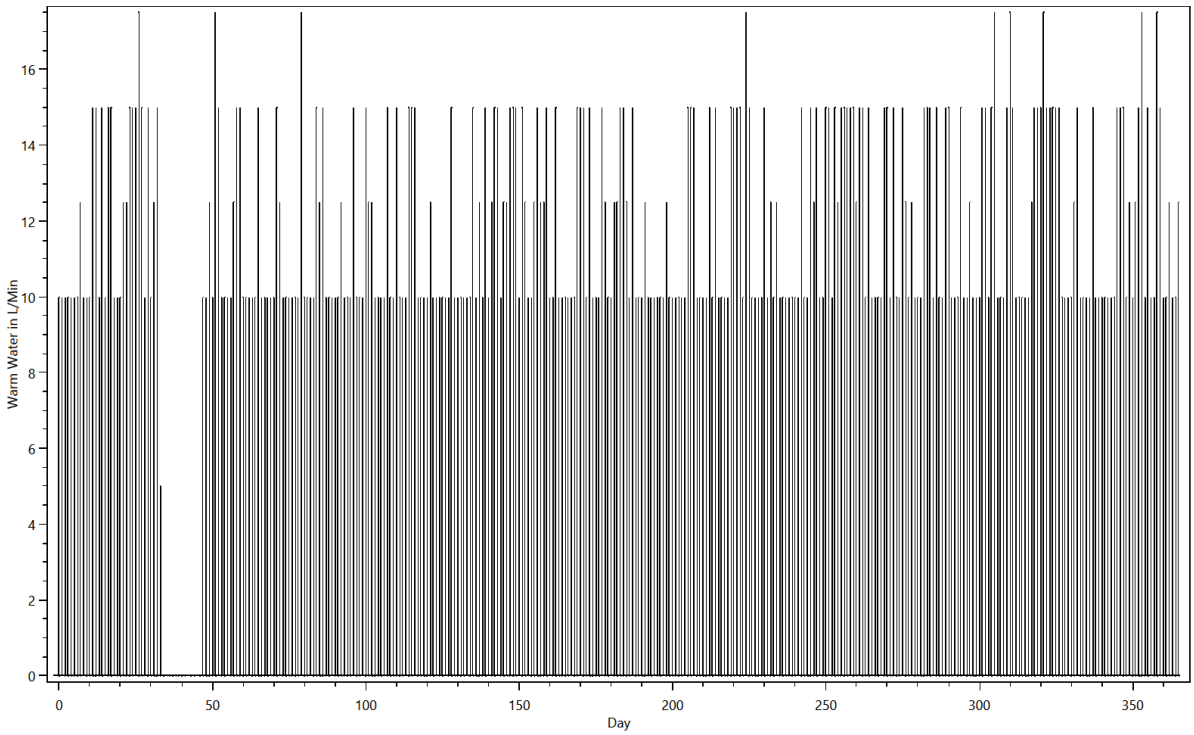
Summed up curve for ElectricityMinMax from SumProfiles.ElectricityMinMax..png



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.CHR02 Couple, 30 - 64 age, with work 0.txt

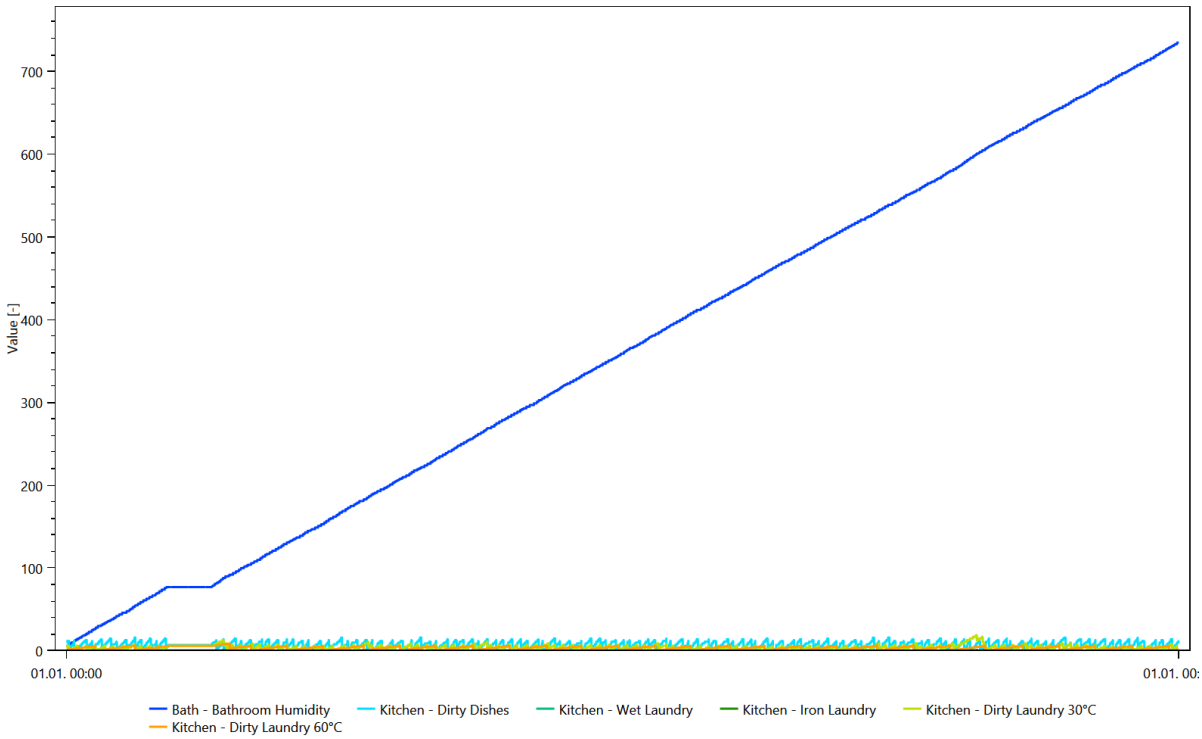
Device;Load Type;Profile;Number of Activations
AFK BM-2N;Electricity;Backing profile IV Bread 45 min [Synthetic];41
Atika LH 2500 G;Electricity;0 h 15 min 100% [Synthetic];28
Bar;None;04 h 0 min 100% [Synthetic];17
Bath Tub;Warm Water;0 h 15 min 100% [Synthetic];12
Bath Tub;Warm Water;0 h 20 min 100% [Synthetic];14
Bathroom Light (20W);Electricity;Bath - light [Synthetic for Light Device];777
Bathroom Mirror Light 10 W (LED);Electricity;Bath - light [Synthetic for Light Device];777
Bathroom Sink 5 L/Min;Warm Water;0 h 01 min 100% [Synthetic];2625
Bathroom Sink 5 L/Min;Warm Water;0 h 01 min 50% [Synthetic];554
Bathroom Sink 5 L/Min;Warm Water;0 h 05 min 100% [Synthetic];12
Bed 2;None;08 h 0 min 100% [Synthetic];350
Bed 8;None;08 h 0 min 100% [Synthetic];354
Bedroom Light (20W);Electricity;Bedroom - light [Synthetic for Light Device];70
Blender Vitamix Moulinex;Electricity;Profile for Blender Vitamix Moulinex Electricity [Measurement by ZSW (1min)];61
Book;None;01 h 0 min 100% [Synthetic];2
CD/DVD Player / Philips DVDR 725 H;Electricity;01 h 30 min 100% [Synthetic];9
CD/DVD Player / Philips DVDR 725 H;Electricity;02 h 0 min 100% [Synthetic];12
CD/DVD Player / Philips DVDR 725 H;Electricity;Standby TV / Receiver 1 h 0 min 3% [Synthetic];8438
Canister vacuum cleaner / Siemens VS 06 G 1831;Electricity;0 h 30 min 100% [Synthetic];16

Variables

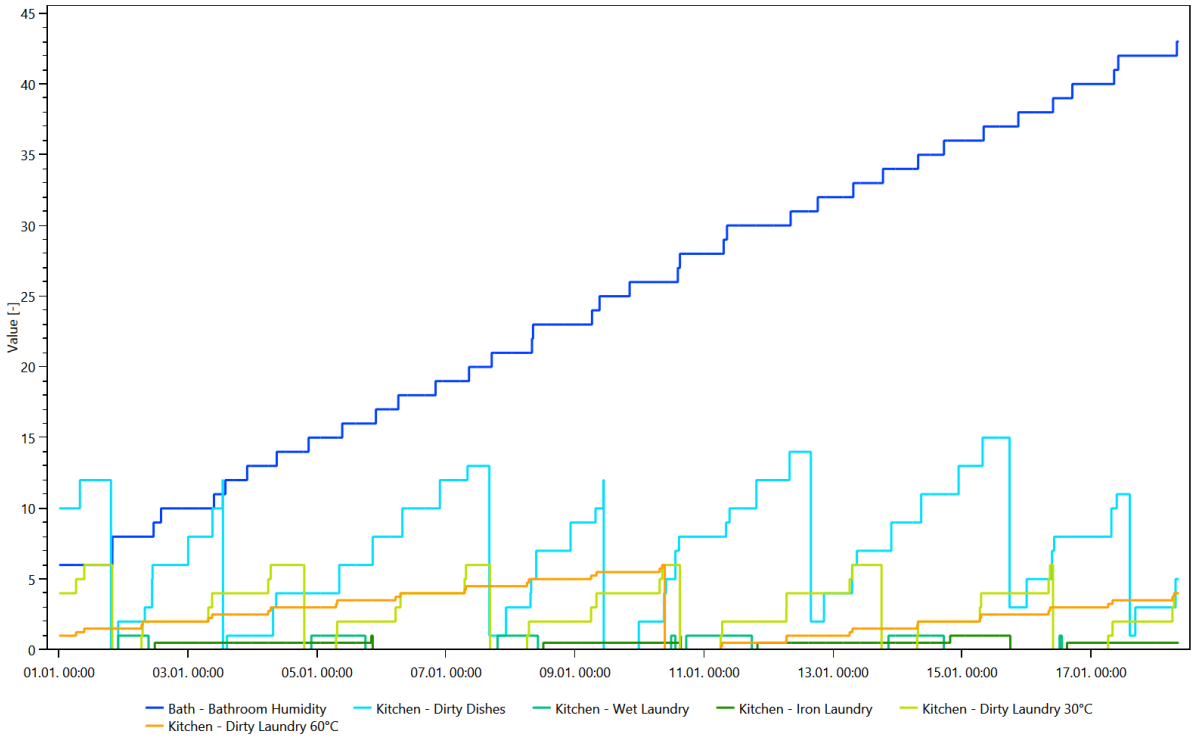
This is made from the files starting with: Variablelogfile

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


45
40
35
30
25
20
15
10
5
0
Value [-]
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
Bath - Bathroom Humidity
Kitchen - Dirty Dishes
Kitchen - Wet Laundry
Kitchen - Iron Laundry
Kitchen - Dirty Laundry 30°C
Kitchen - Dirty Laundry 60°C