

Overview of the results of the household CHR16 Couple over 65 years 0

Calculation Time

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

Energy Intensity: Random

Seed 5227

LoadProfileGenerator 5.8.0.16019

by Noah Pflugradt

<http://www.loadprofilegenerator.de>

Rendering date:16.12.2016 09:05:40

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Totals

Totals for each Loadtype

Load Type	Value	Unit
Cold Water	20170.30	L
Electricity	3700.69	kWh
Warm Water	138701.83	L

Totals for each Loadtype per Day

Load Type	Value	Unit
Cold Water	55.11	L
Electricity	10.11	kWh
Warm Water	378.97	L

Minimum and Maximum for each Loadtype

Household	Minimum	Maximum	Unit
Cold Water	0.00	12.11	L/Min
Electricity	0.16	9537.03	Watt
Warm Water	0.00	27.12	L/Min

Totals for each Loadtype per Person

Load Type	Value	Unit
Cold Water	10085.15	L
Electricity	1850.34	kWh

Warm Water	69350.91	L
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Totals for each Loadtype per Person per Day

Load Type	Value	Unit
Cold Water	27.56	L
Electricity	5.06	kWh
Warm Water	189.48	L

Persons

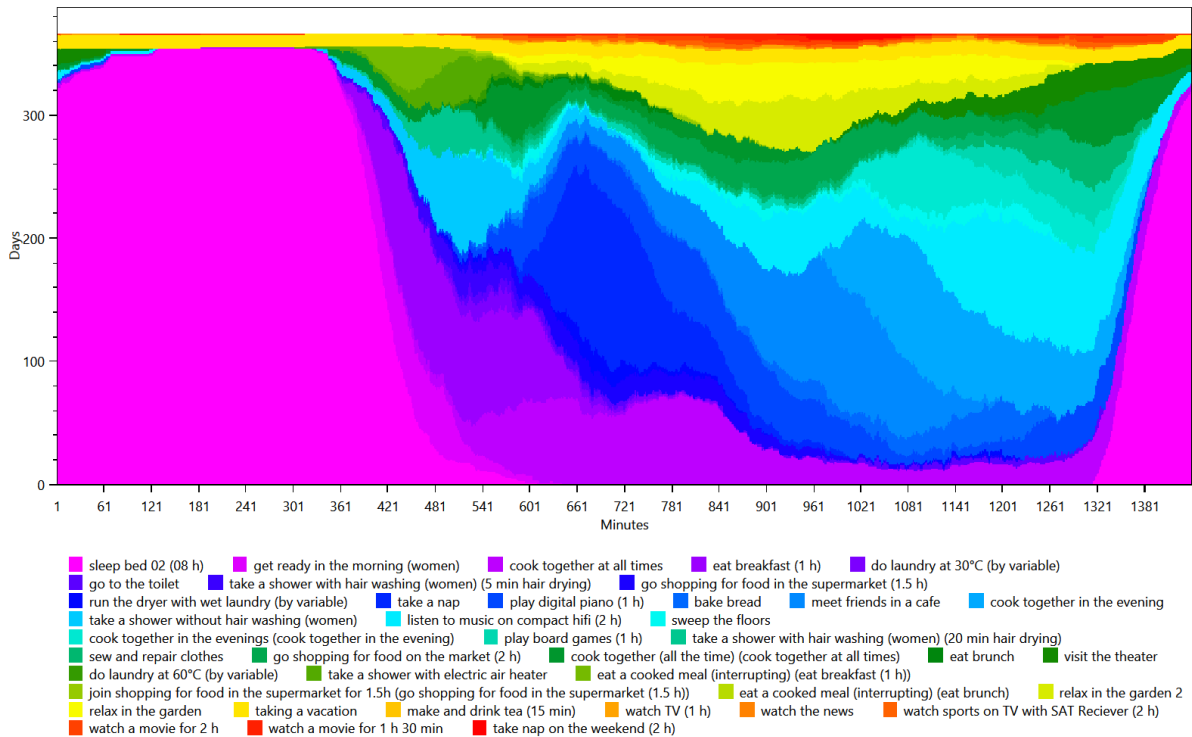
- HH0
 - CHR16 Cordelia (75/Female)(75/Female)
 - CHR16 Edgar (80/Male)(80/Male)

Activity Frequency Charts

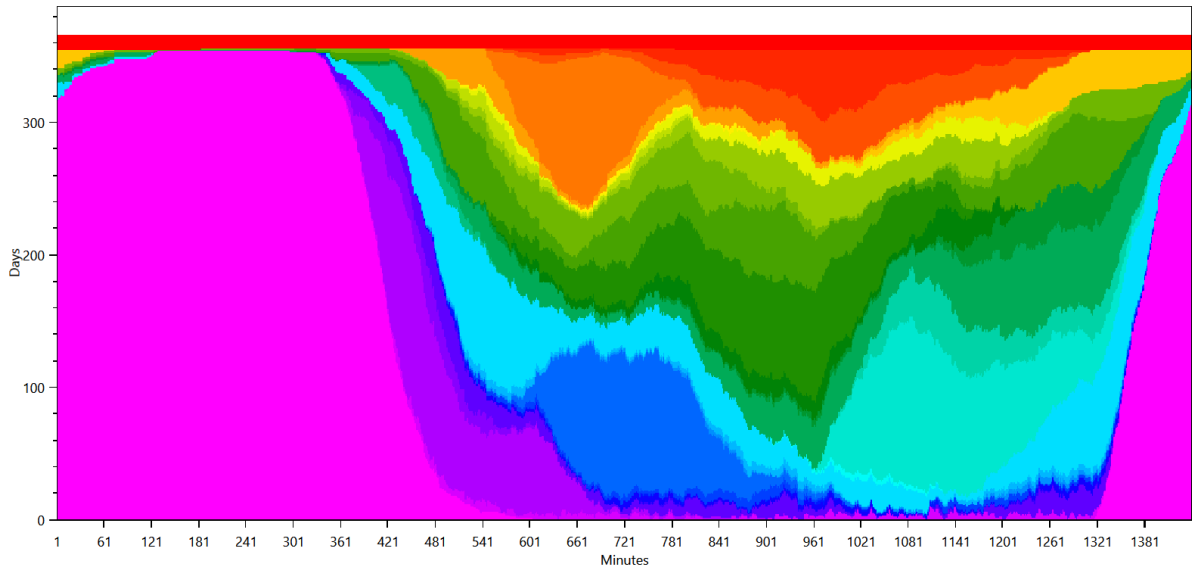
This is made from the files starting with: ActivityFrequenciesPerMinute

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 - CHR16 Cordelia (75 Female)



HH0 - CHR16 Edgar (80 Male)



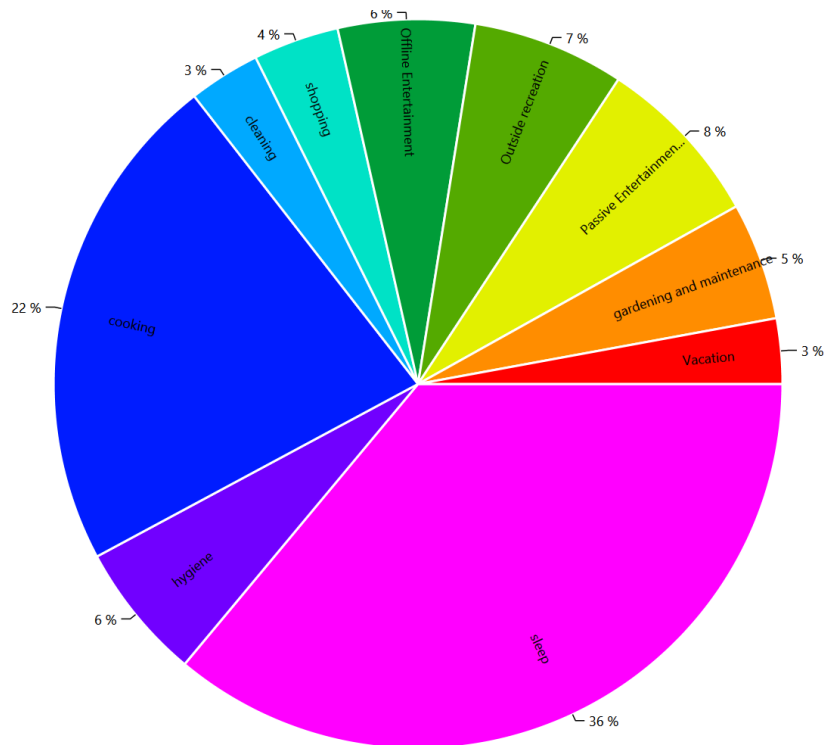
- sleep bed 08 (08 h)
- go to the toilet
- eat breakfast (1 h)
- get ready in the morning (men)
- take a shower (men)
- watch the news
- watch a movie for 1 h 30 min
- make and drink tea (15 min)
- watch a movie for 2 h
- take a nap
- watch TV (1 h)
- watch sports on TV with SAT Receiver (2 h)
- cook together at all times
- take nap on the weekend (2 h)
- cook together in the evening
- cook together in the evenings (cook together in the evening)
- eat a cooked meal (interrupting) (eat breakfast (1 h))
- listen to music on compact hifi (2 h)
- play board games (1 h)
- vacuum the household
- meet friends in a cafe
- play digital piano (1 h)
- cook together (all the time) (cook together at all times)
- go shopping for food on the market (2 h)
- eat brunch
- clean the bath
- join shopping for food in the supermarket for 1.5h (go shopping for food in the supermarket (1.5 h))
- visit the theater
- go shopping for food in the supermarket (1.5 h)
- do garden work every day
- relax in the garden 2
- relax in the garden
- taking a vacation

Activity Distribution per Person

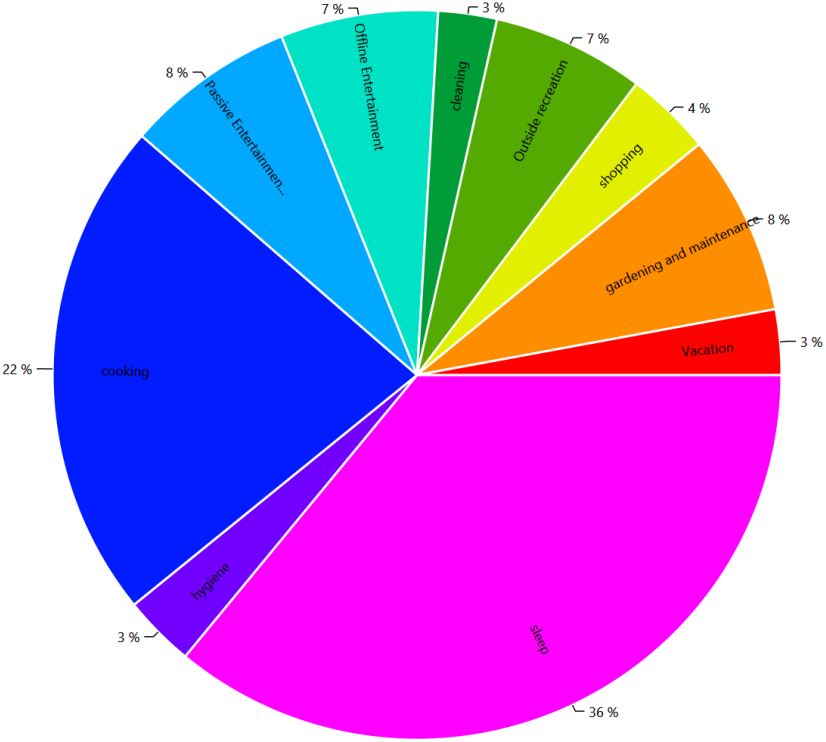
This is made from the files starting with: ActivityPercentage

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

HH0 - CHR16 Cordelia (75 Female)



HH0 - CHR16 Edgar (80 Male)

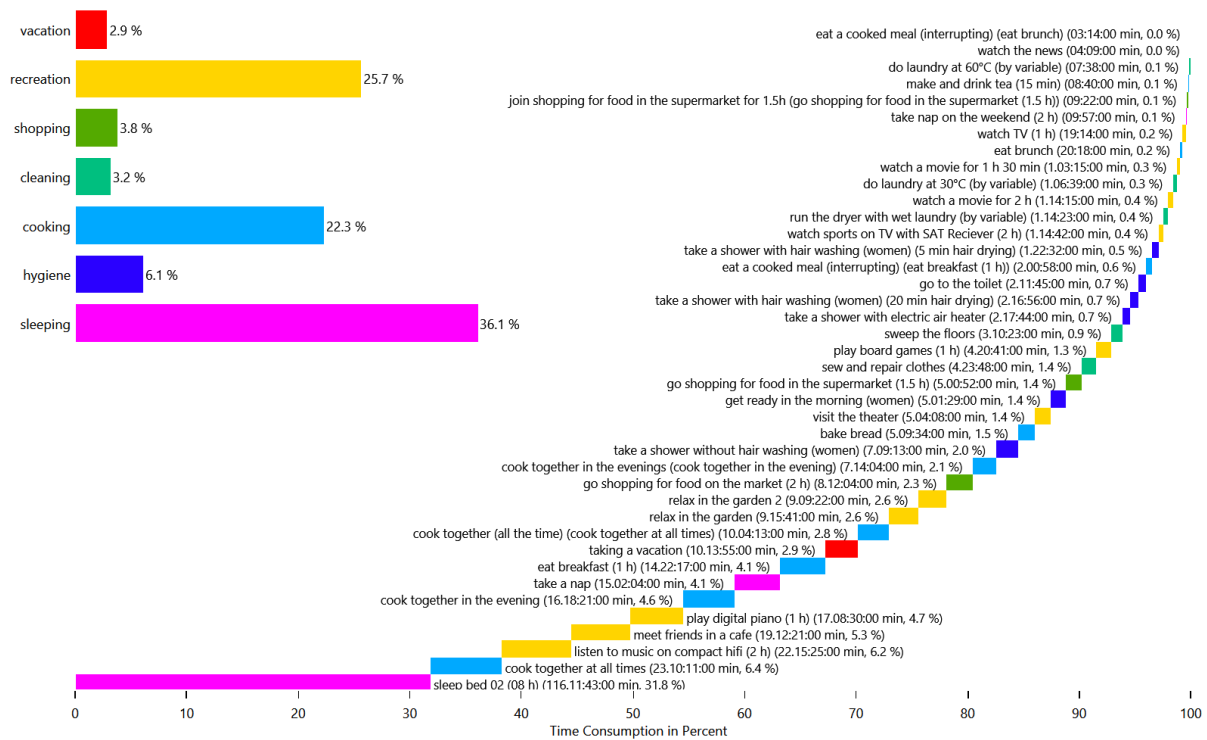


Time Use per Person per Affordance Per Person

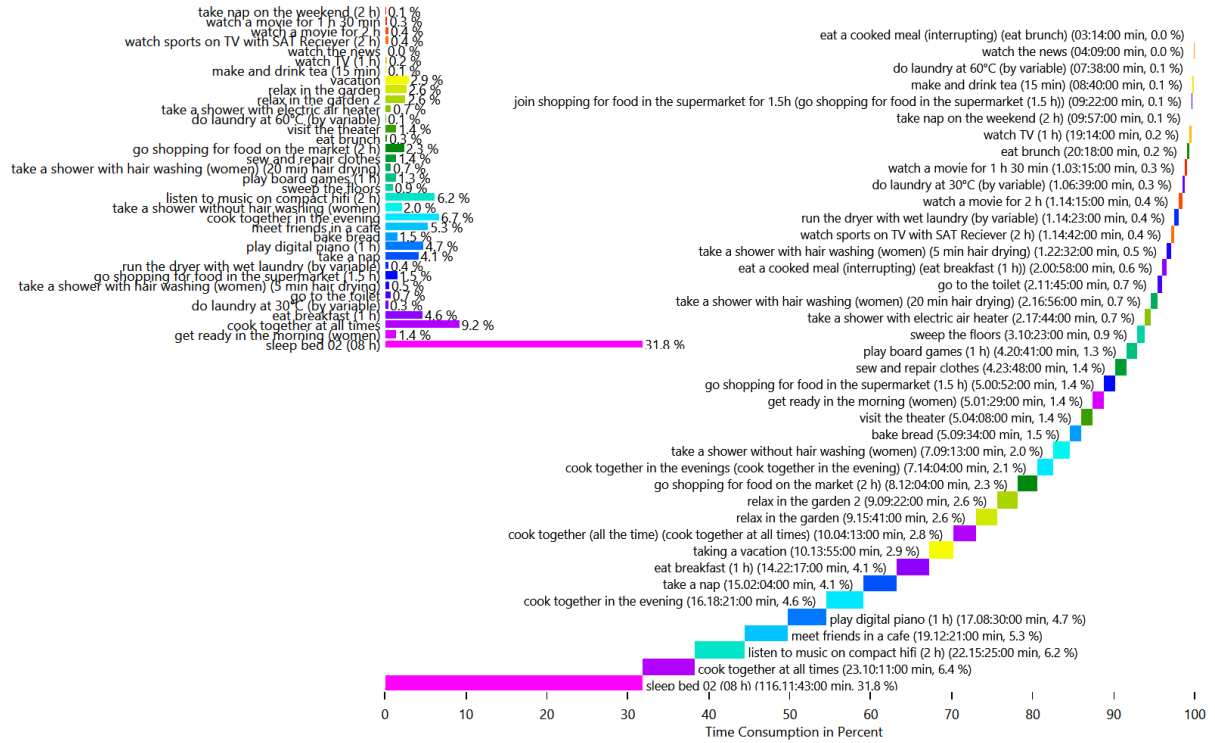
This is made from the files starting with: AffordanceTimeUse

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.

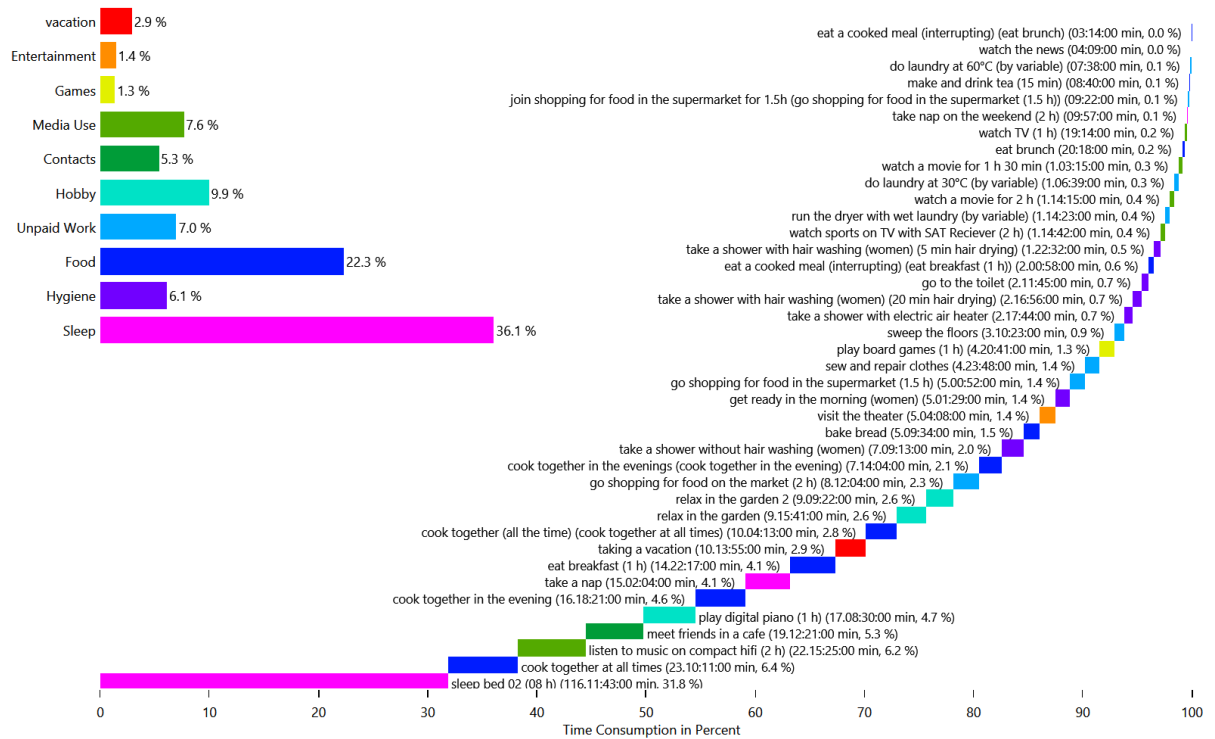
HH0 - CHR16 Cordelia (75 Female)



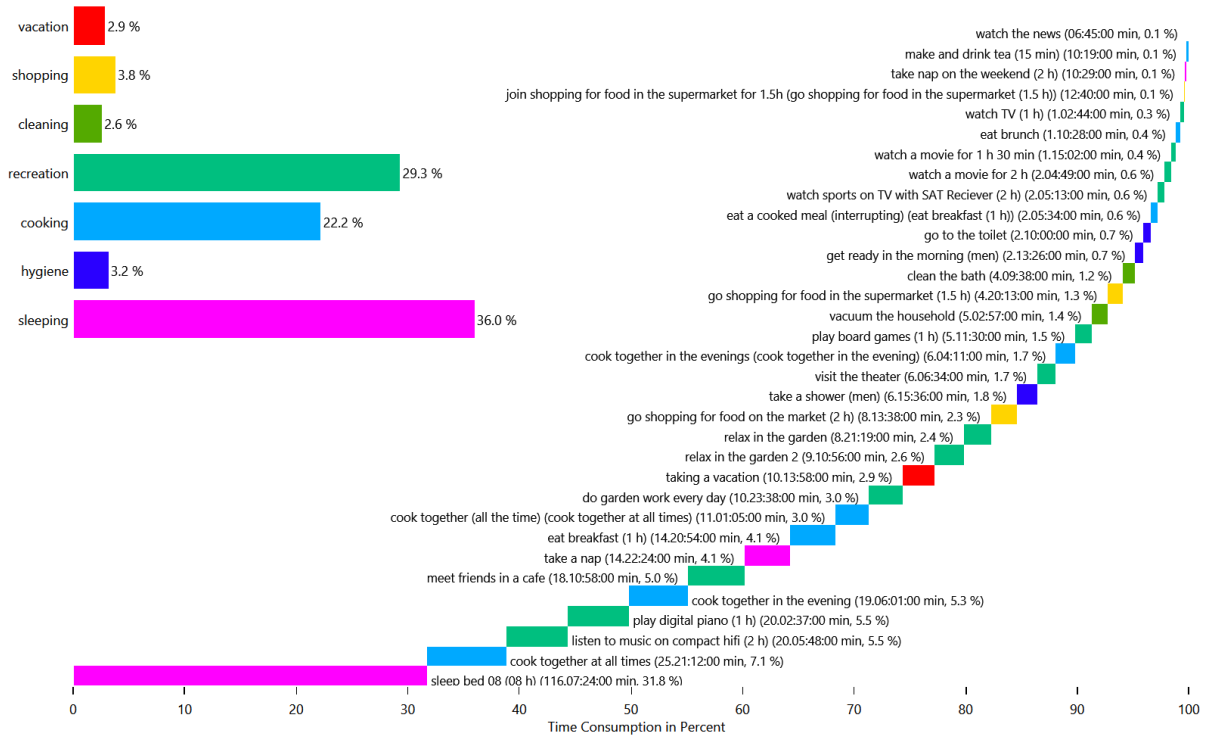
HH0 - CHR16 Cordelia (75 Female)



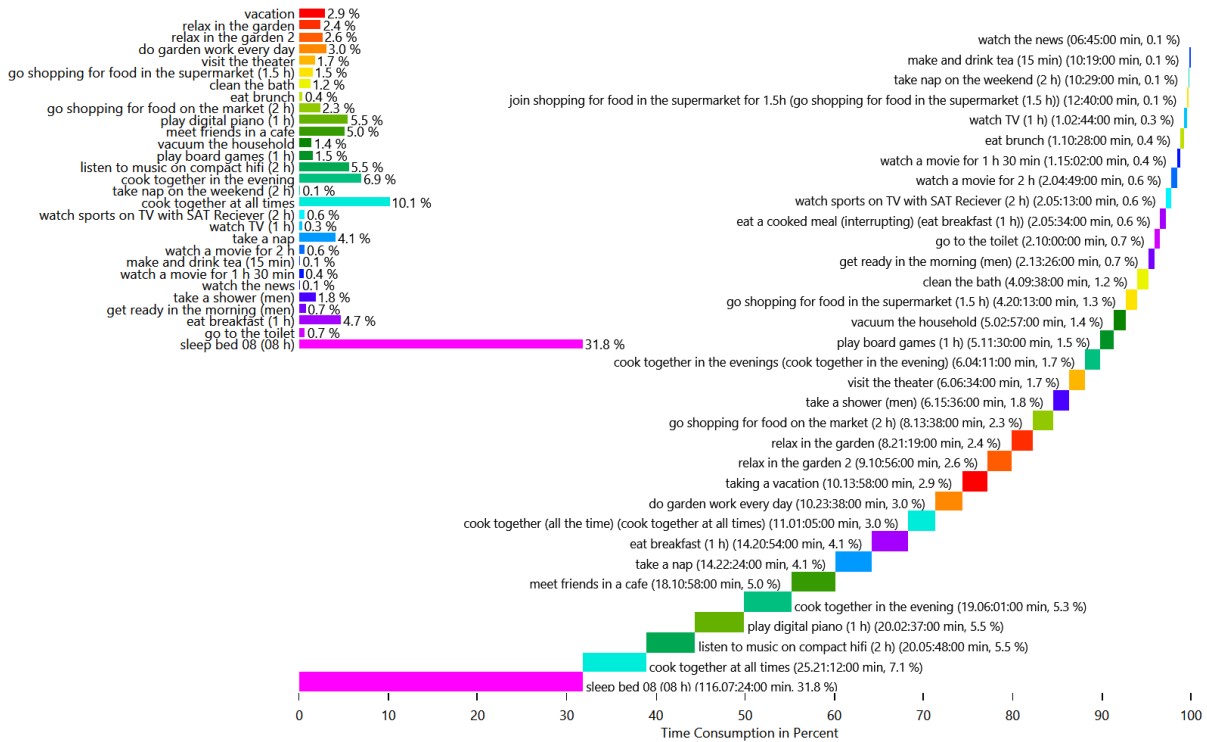
HH0 - CHR16 Cordelia (75 Female)



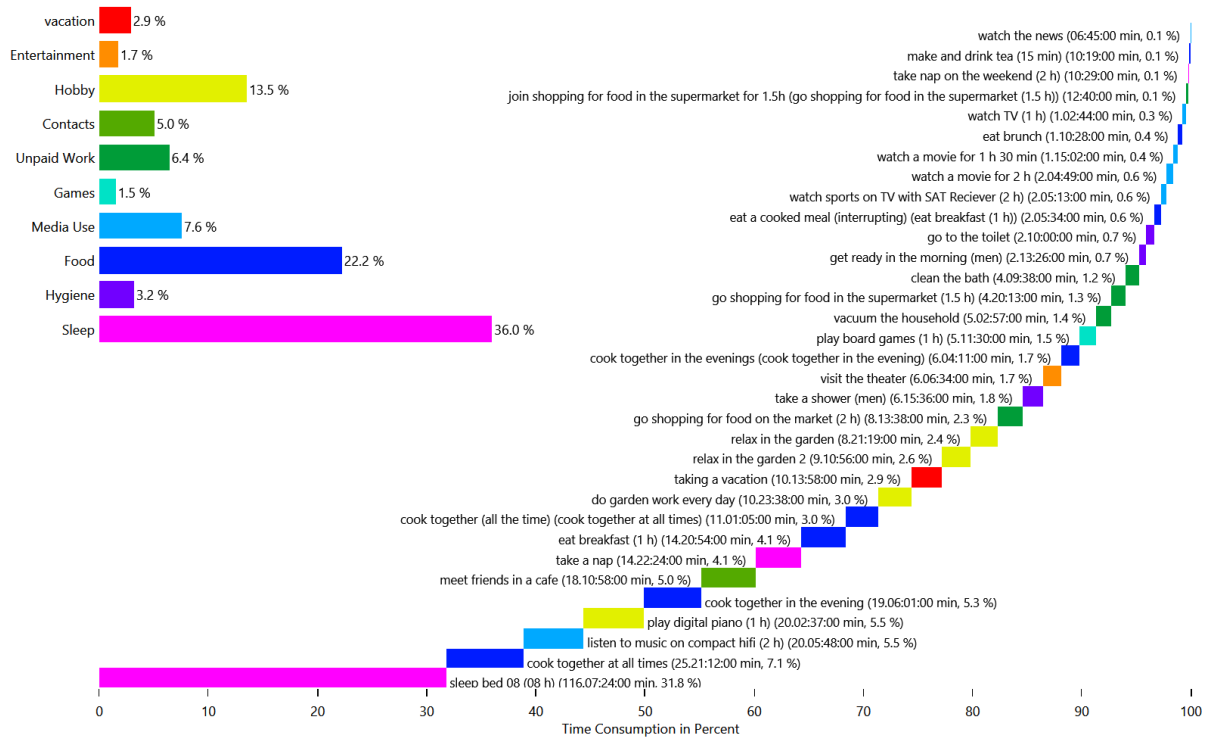
HH0 - CHR16 Edgar (80 Male)



HH0 - CHR16 Edgar (80 Male)



HH0 - CHR16 Edgar (80 Male)

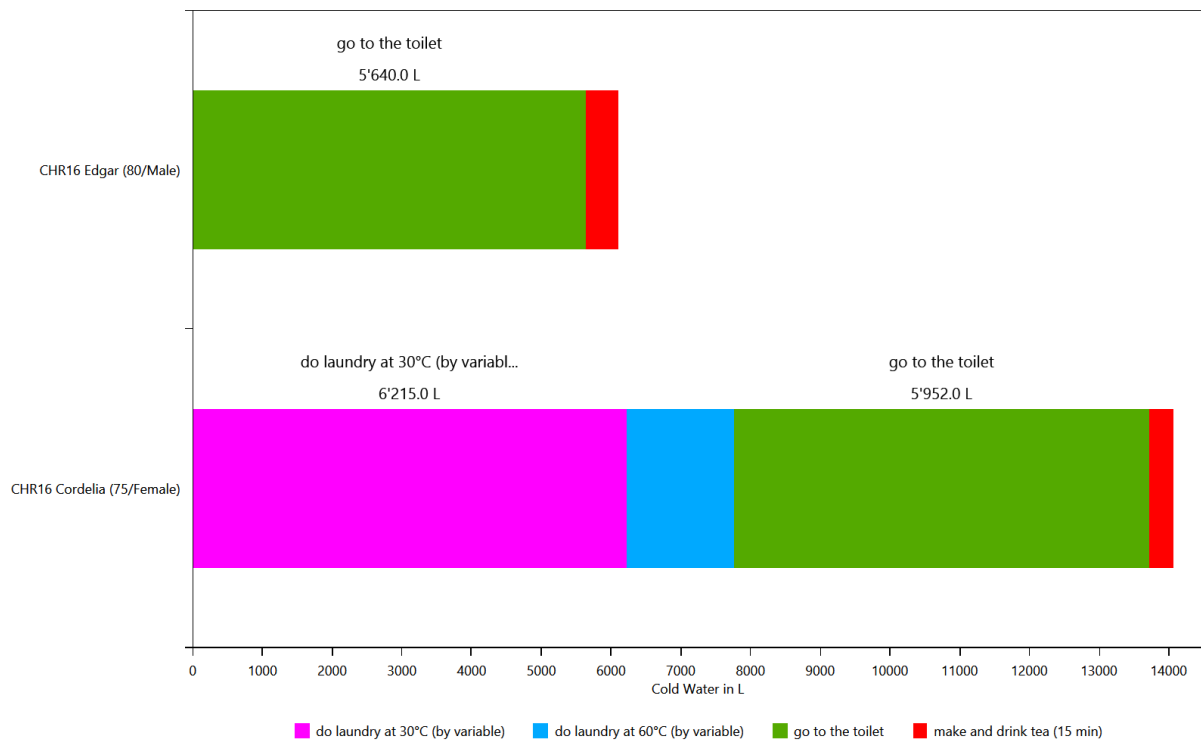


Energy use per person per affordance

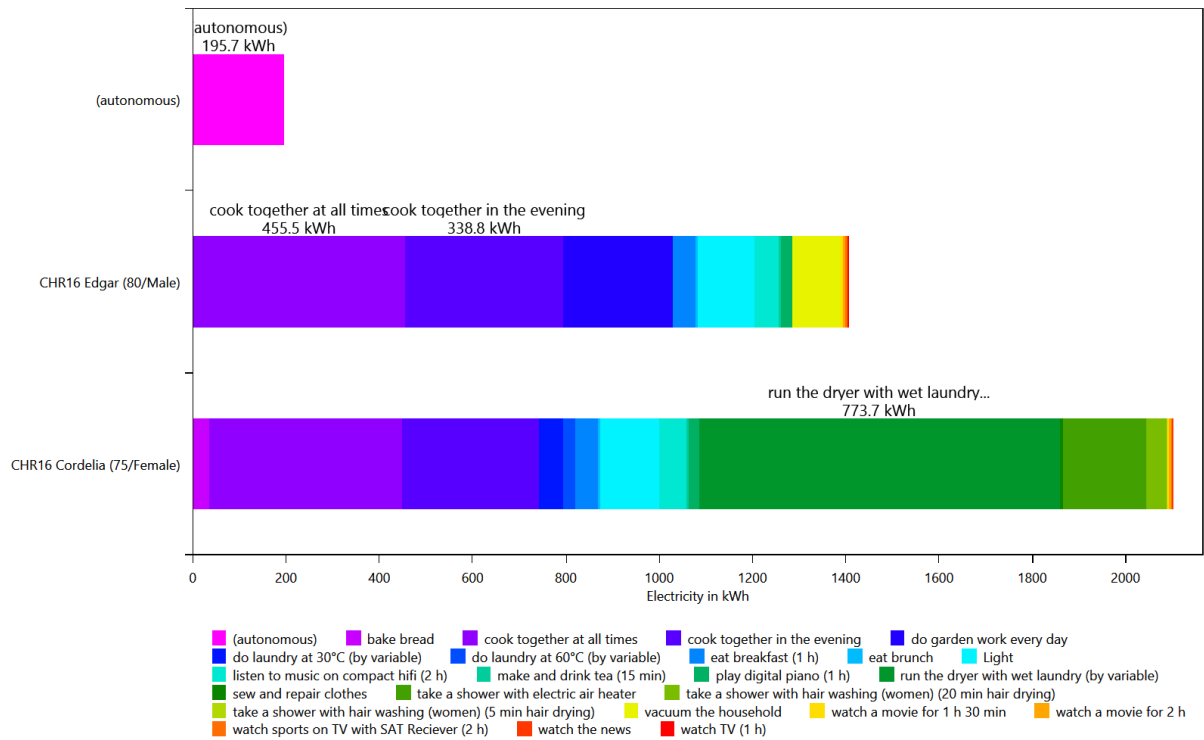
This is made from the files starting with: **AffordanceEnergyUsePerPerson**

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.

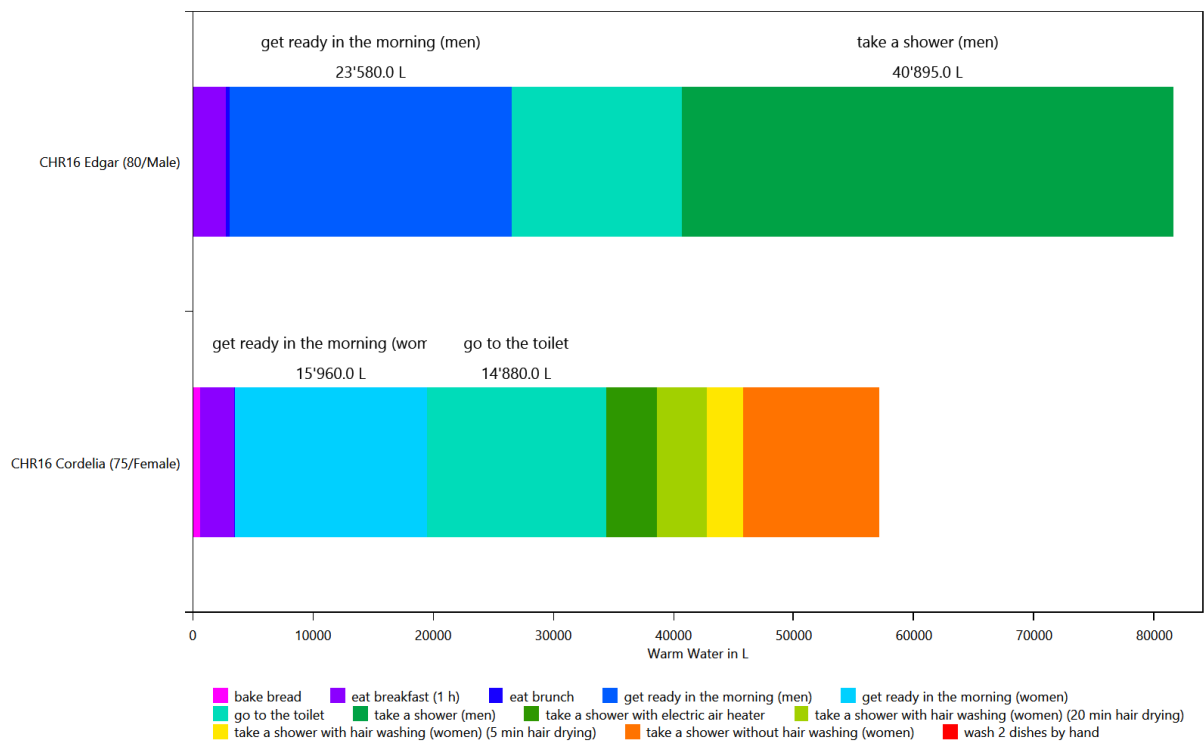
HH0 - Cold Water



HH0 - Electricity



HH0 - Warm Water

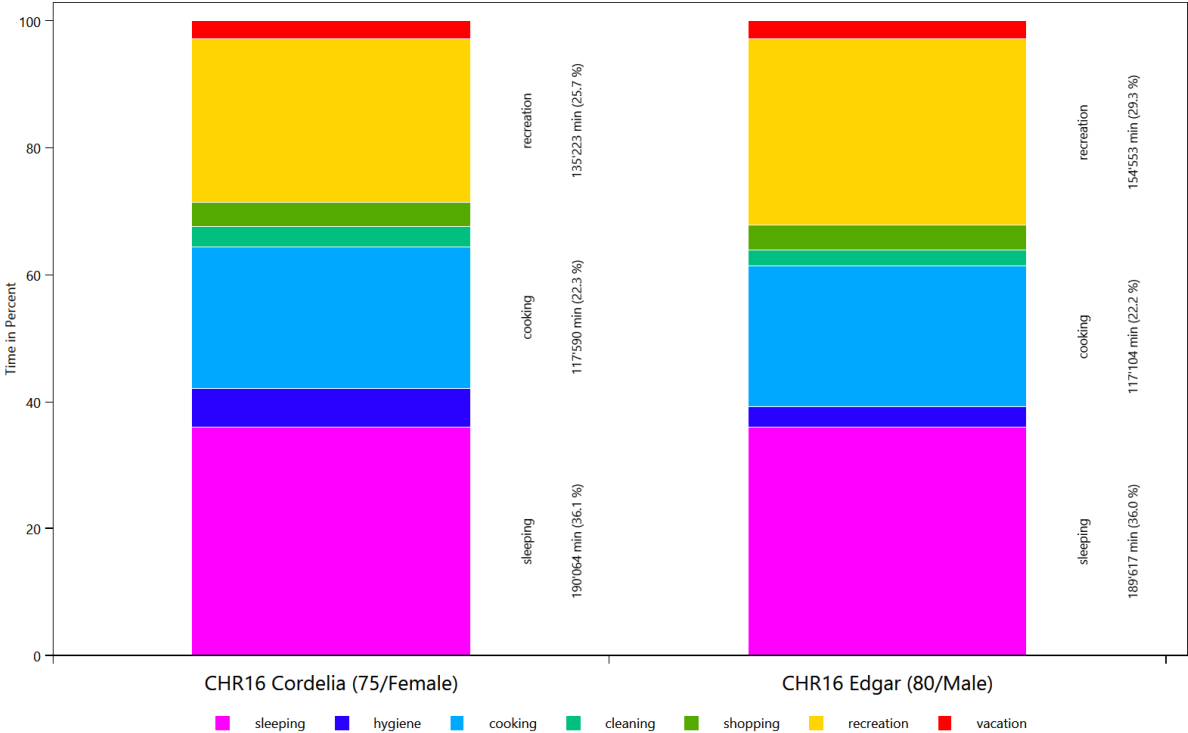


Time Use per Person Per Affordance according to different category definitions

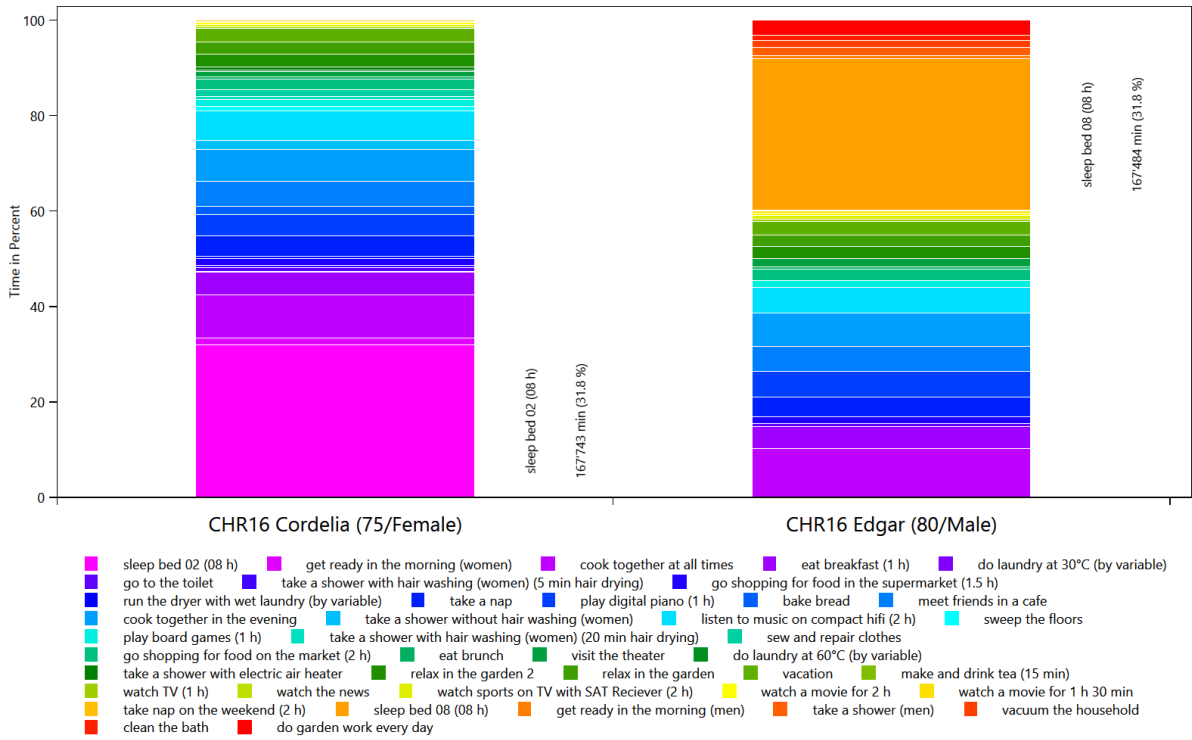
This is made from the files starting with: AffordanceTaggingSet

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.

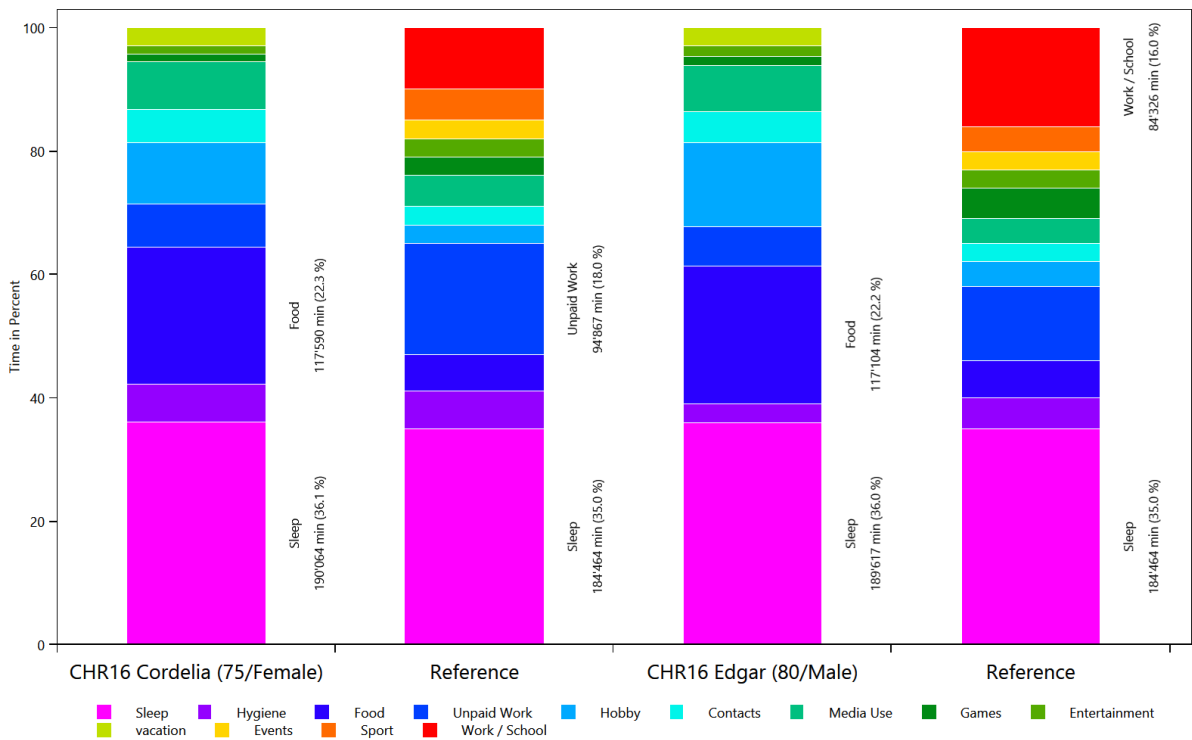
Basic Tagging - HH0



Tagging Set For Planning - HH0



Wo bleibt die Zeit - HH0

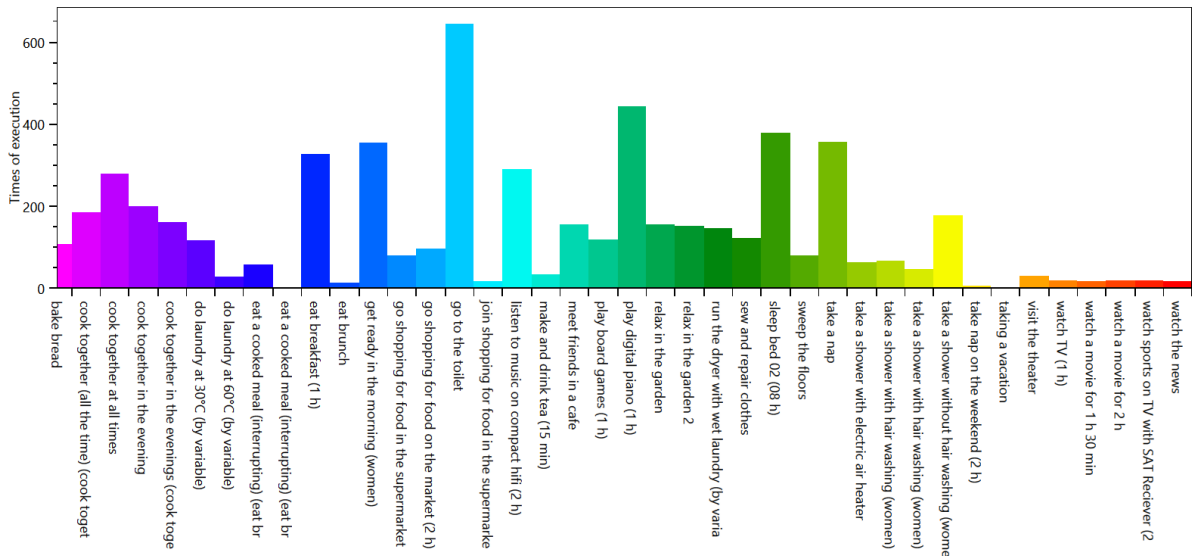


Overview of the actions of each member of the household

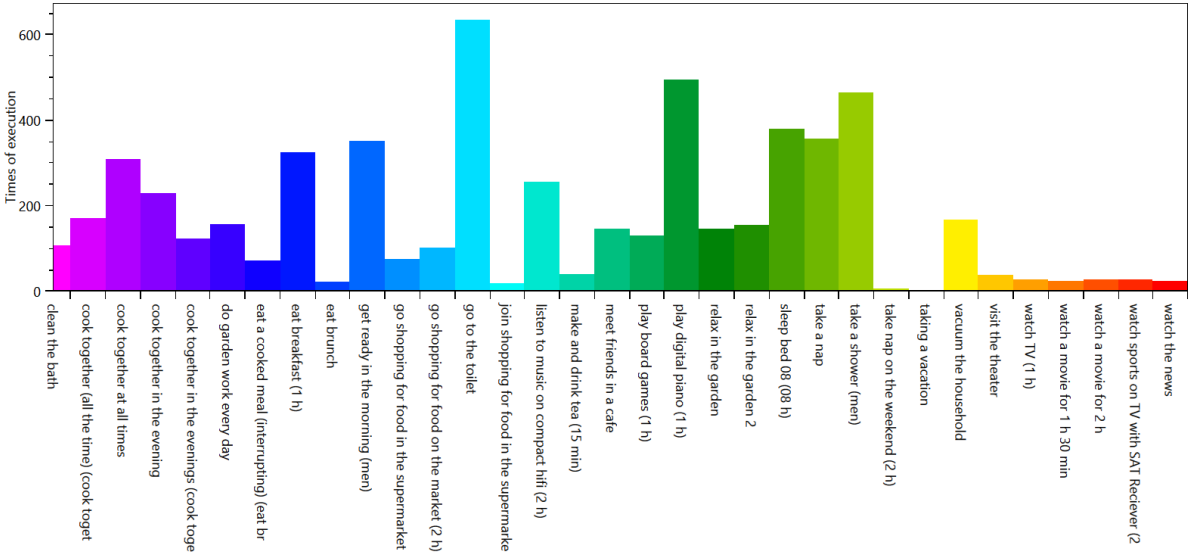
This is made from the files starting with: ExecutedActionsOverviewCount

These charts show how often each affordance was executed.

HH0 - CHR16 Cordelia (75 Female)



HH0 - CHR16 Edgar (80 Male)

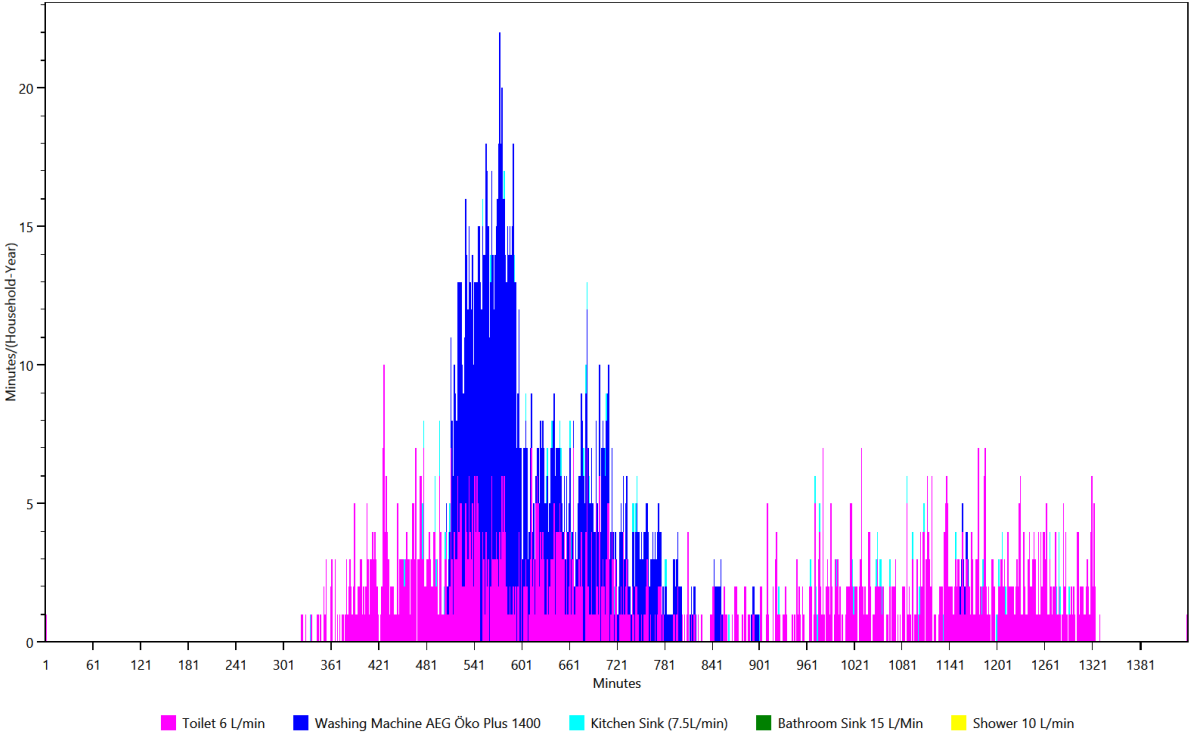


Overview of the time of the use per load type per device

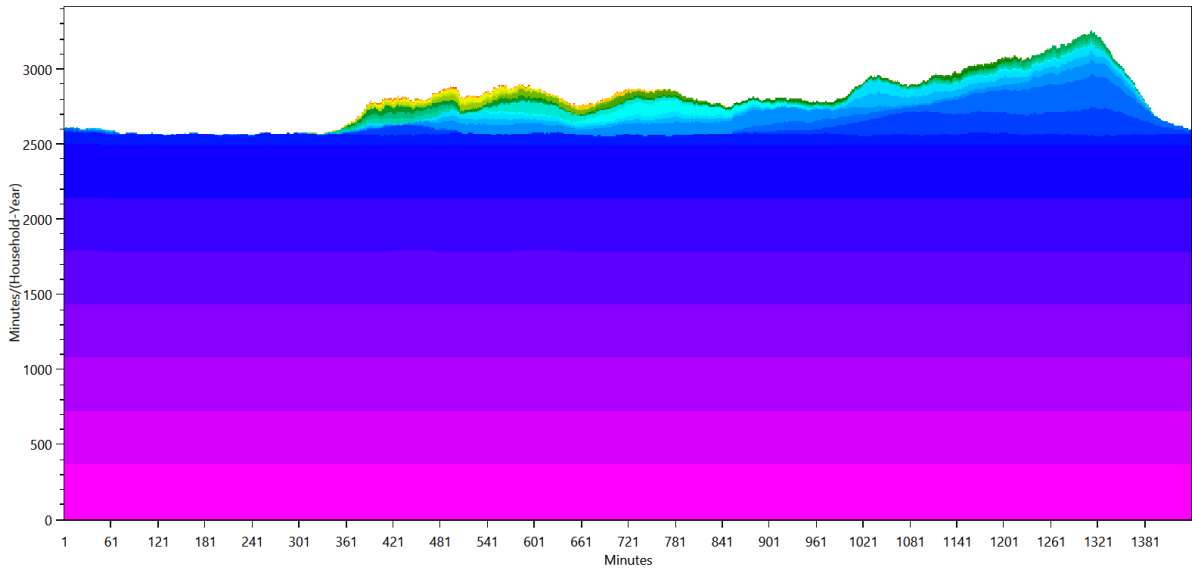
This is made from the files starting with: TimeOfUseEnergyProfiles

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

Cold Water

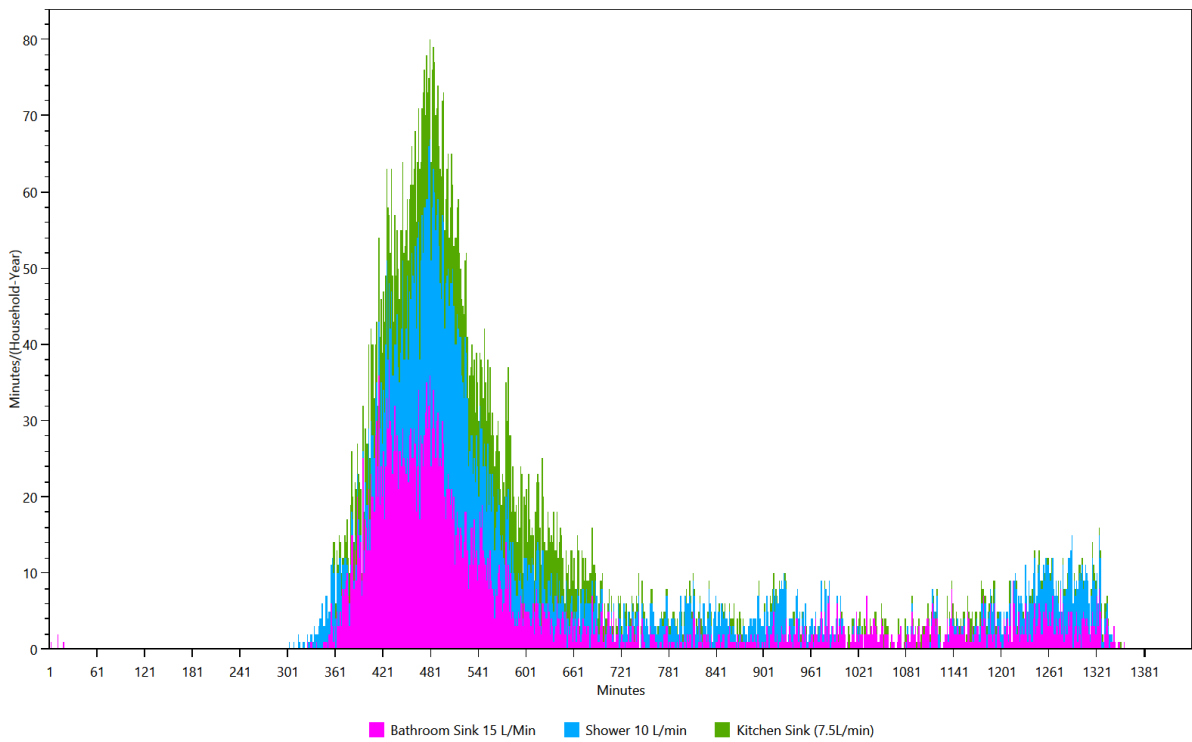


Electricity



- Electric Toothbrush Dondodent Professional Clean
- SAT Receiver / Kathrein UFS913
- Kitchen Light (20W)
- Kitchen Stove / Bauknecht Heko 750 PT Kitchen stove front left
- Bathroom Mirror Light 10 W (LED)
- Lawn Mower / Sabo 36-EL SA 752
- Hair Dryer Babyliss 2000
- Food Slicer / DOMO Schneidemaschine D0521S
- Kitchen radio / AEG KRC 4323 CD
- Electric Razor / Phillips PT860/16 Razor PowerTouch Plus
- Living Room Light (200W)
- Digitalpiano / Kawai CN-23
- Miele T 495 C
- AEG NM 2701 Premium
- Hedge Trimmer / Bosch AHS 550-24 ST
- Toaster Salco MT 400
- Atika LH 2500 G
- CD/DVD Player / Phillips HDR3810/31
- Hifi System / Sharp XL-HF300PH
- Kitchen Stove / Bauknecht Heko 750 PT Kitchen-stove right hind
- Washing Machine AEG Öko Plus 1400
- Bathroom Light (200W)
- Juicer / Moulinex Vitafruit
- Canister Vacuum Cleaner / Siemens Z6.0 VSZ61260
- AFK BM-2N
- Heater / Honeywell BH-888E
- Egg Cooker / Russell Hobbs 14048-56 Stylo
- Nespresso Coffee Machine, Single Cup
- Bedroom Light (200W)

Warm Water



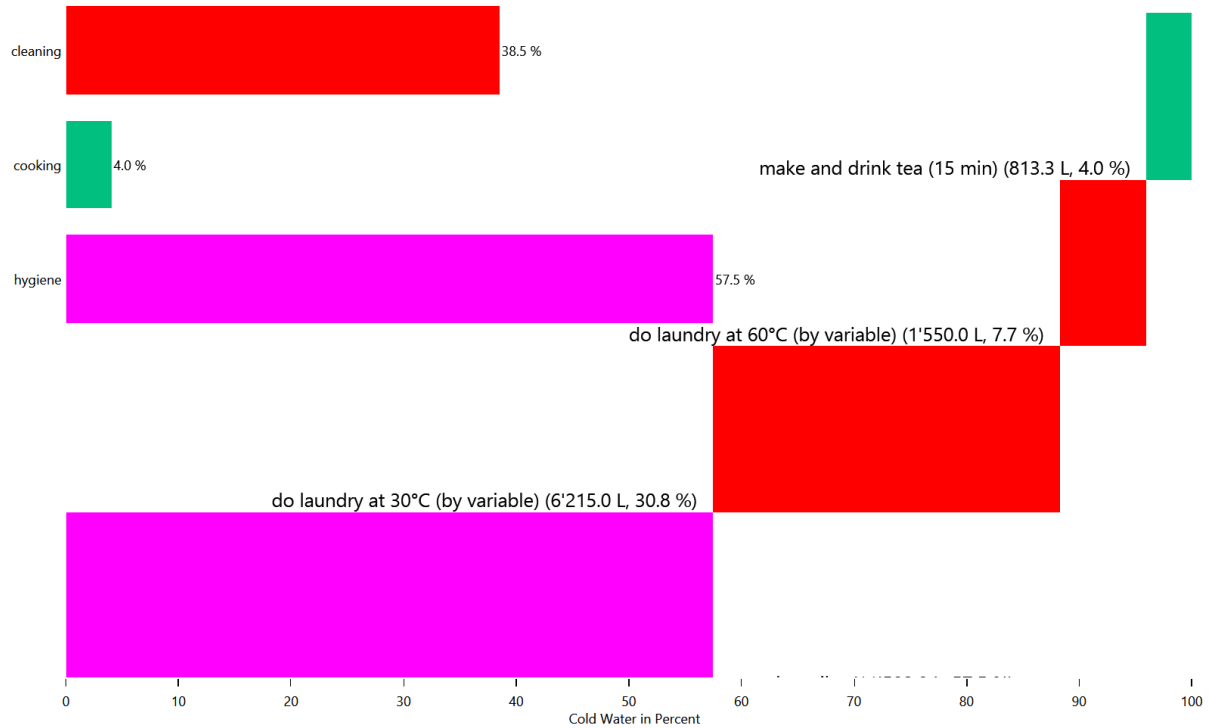
- Bathroom Sink 15 L/Min
- Shower 10 L/min
- Kitchen Sink (7.5L/min)

Energy/Resource use distribution per load type per affordance

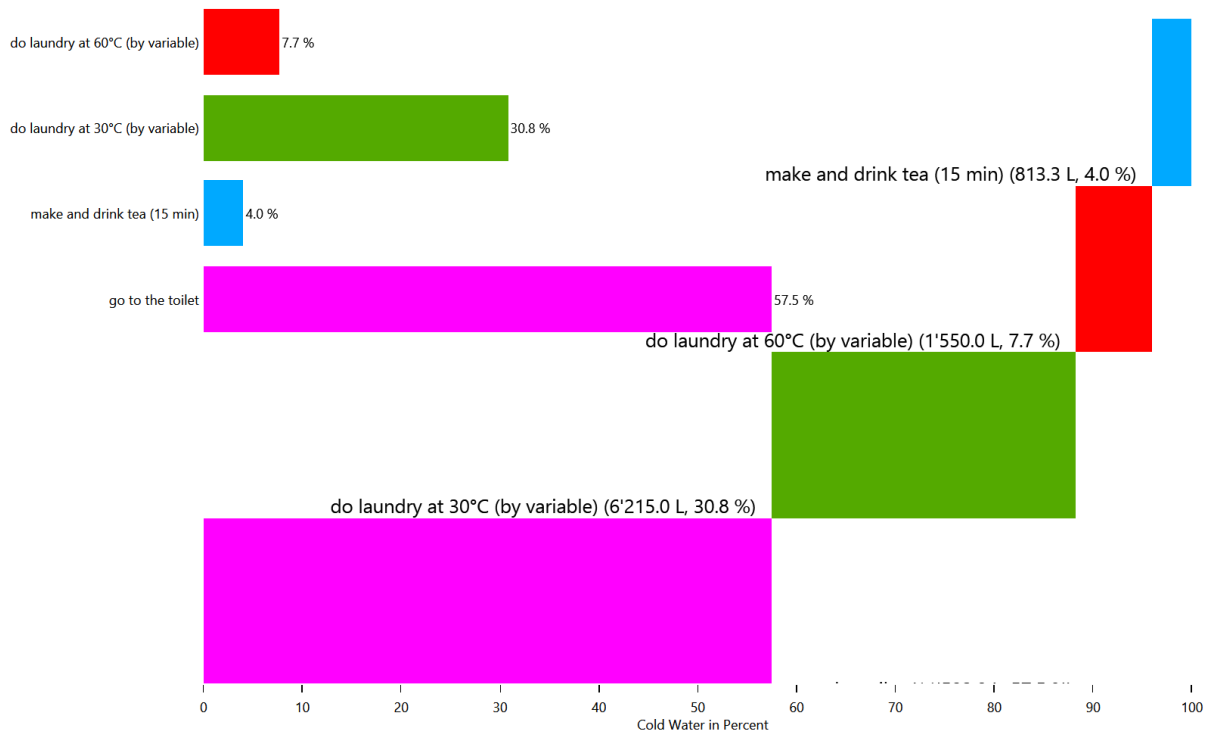
This is made from the files starting with: **AffordanceEnergyUse**

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

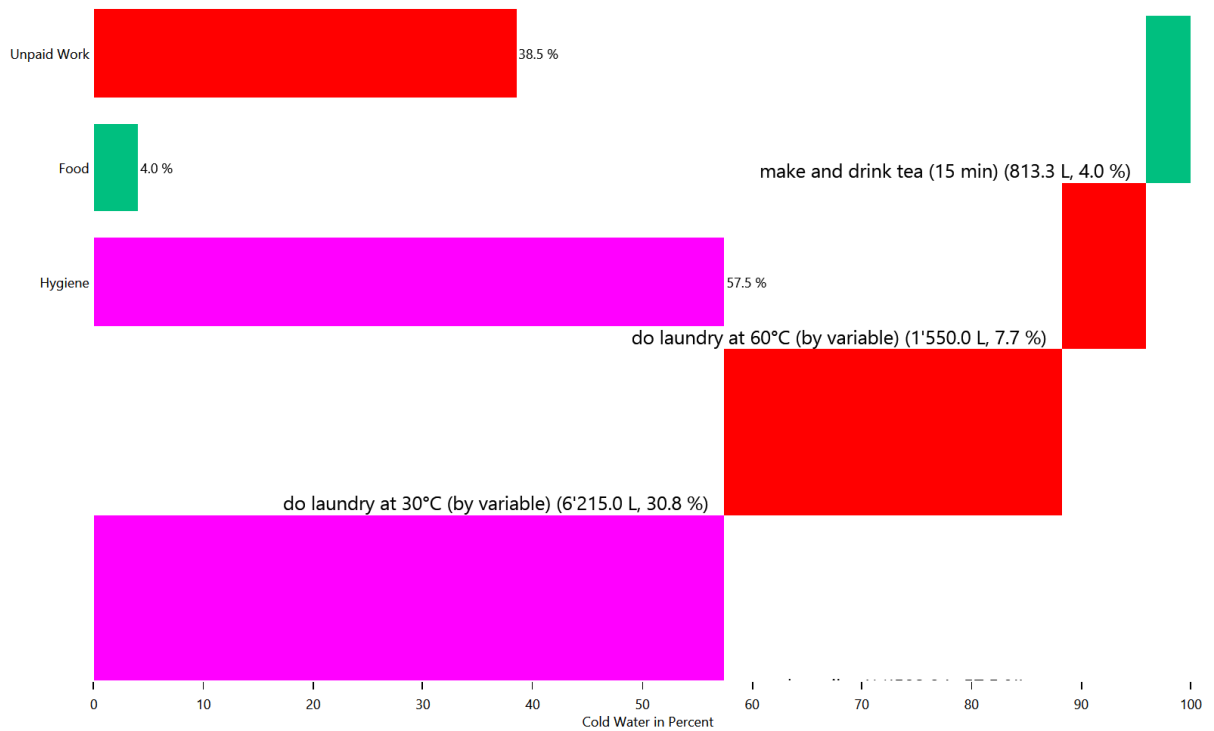
HH0 - Cold Water



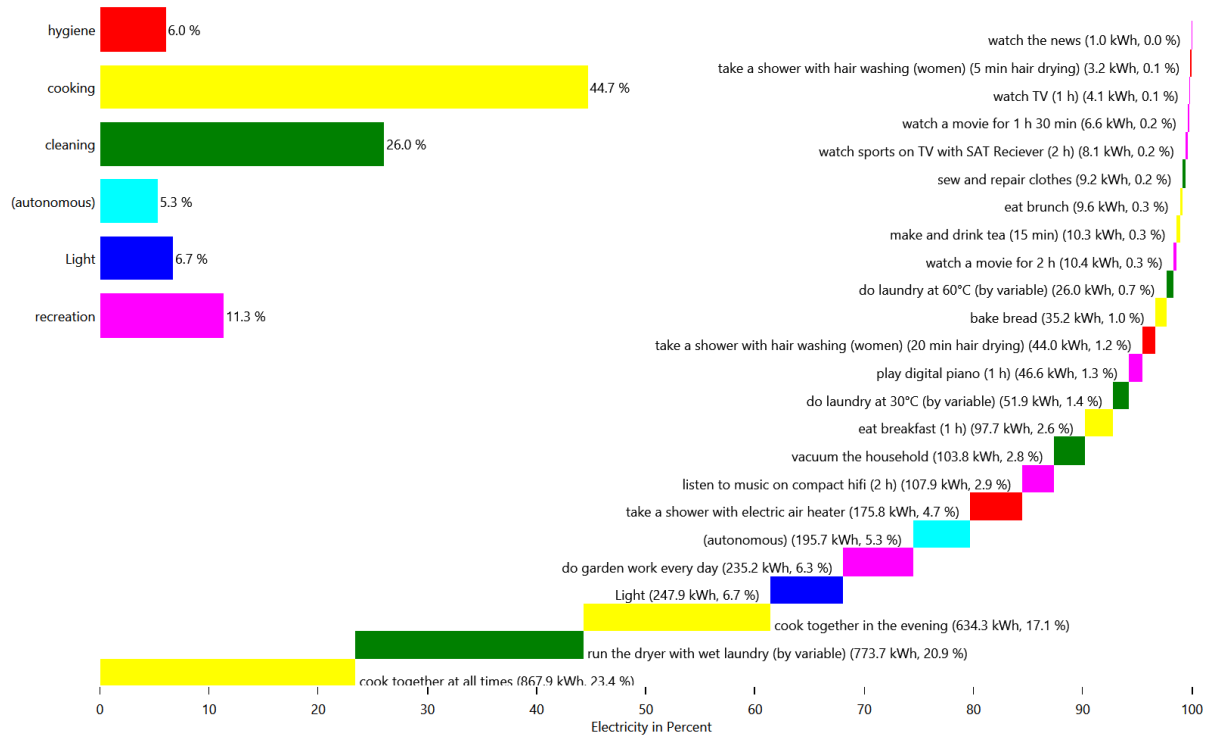
HH0 - Cold Water



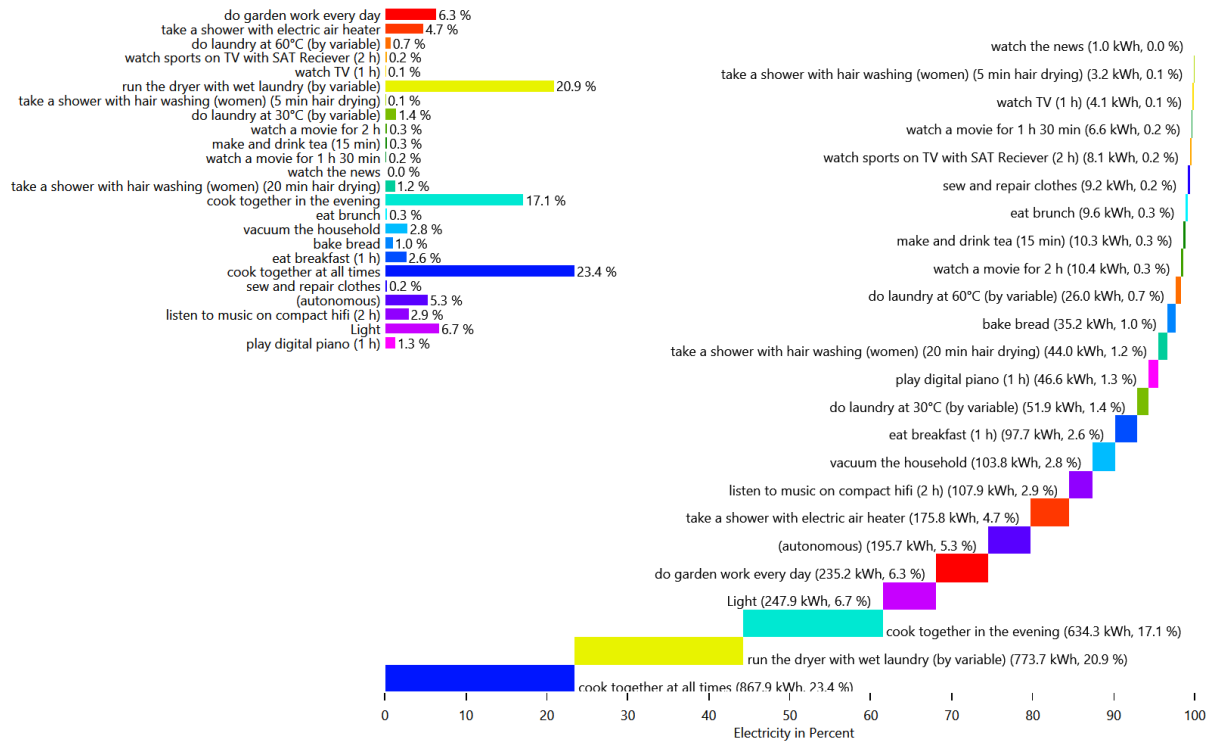
HH0 - Cold Water



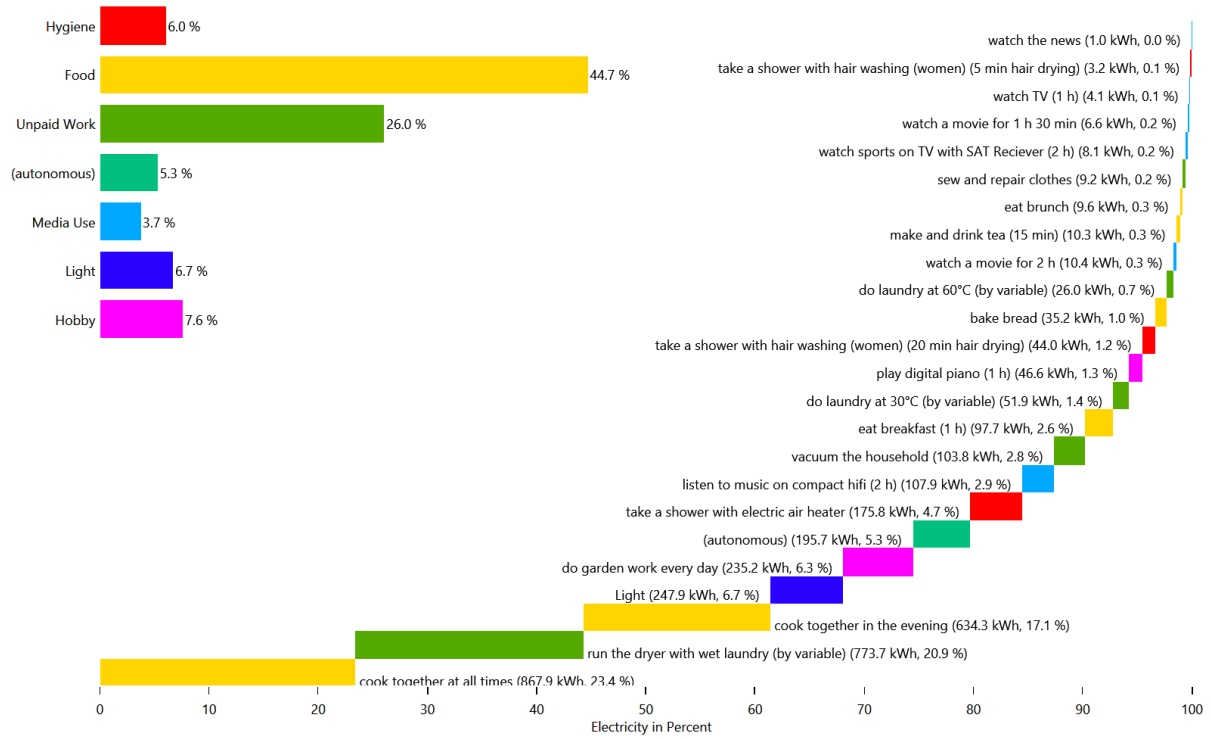
HH0 - Electricity



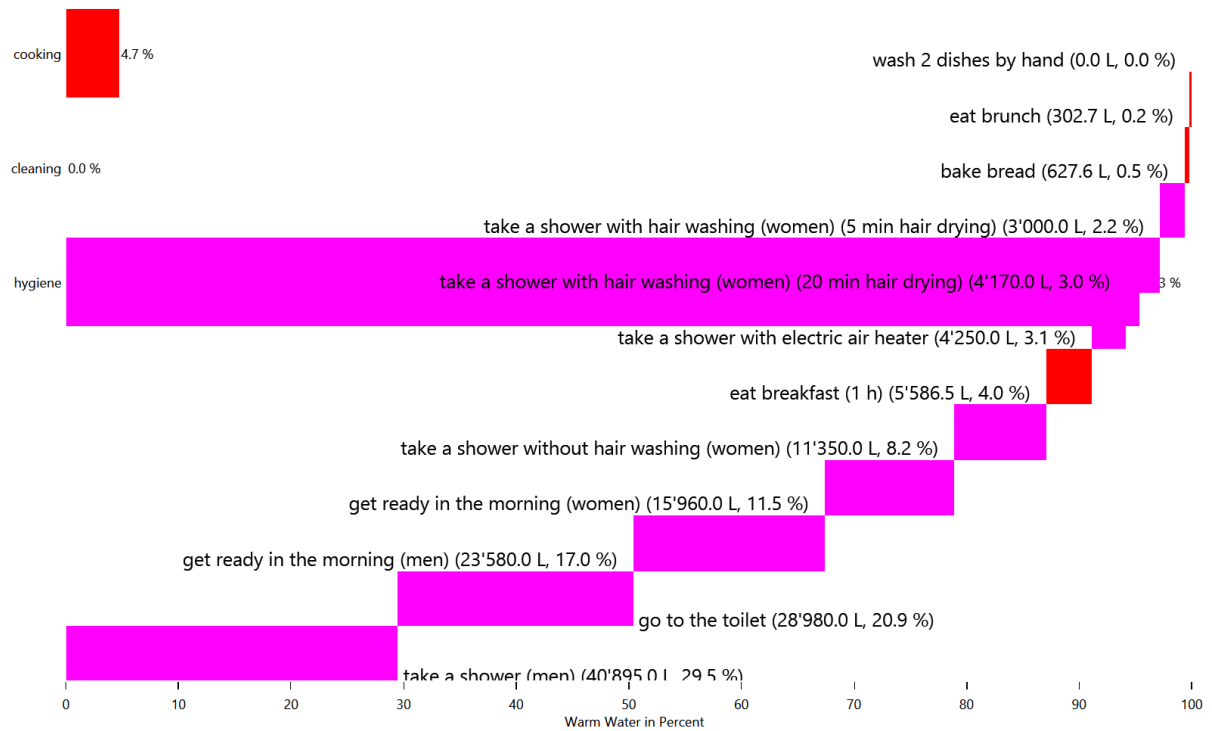
HH0 - Electricity



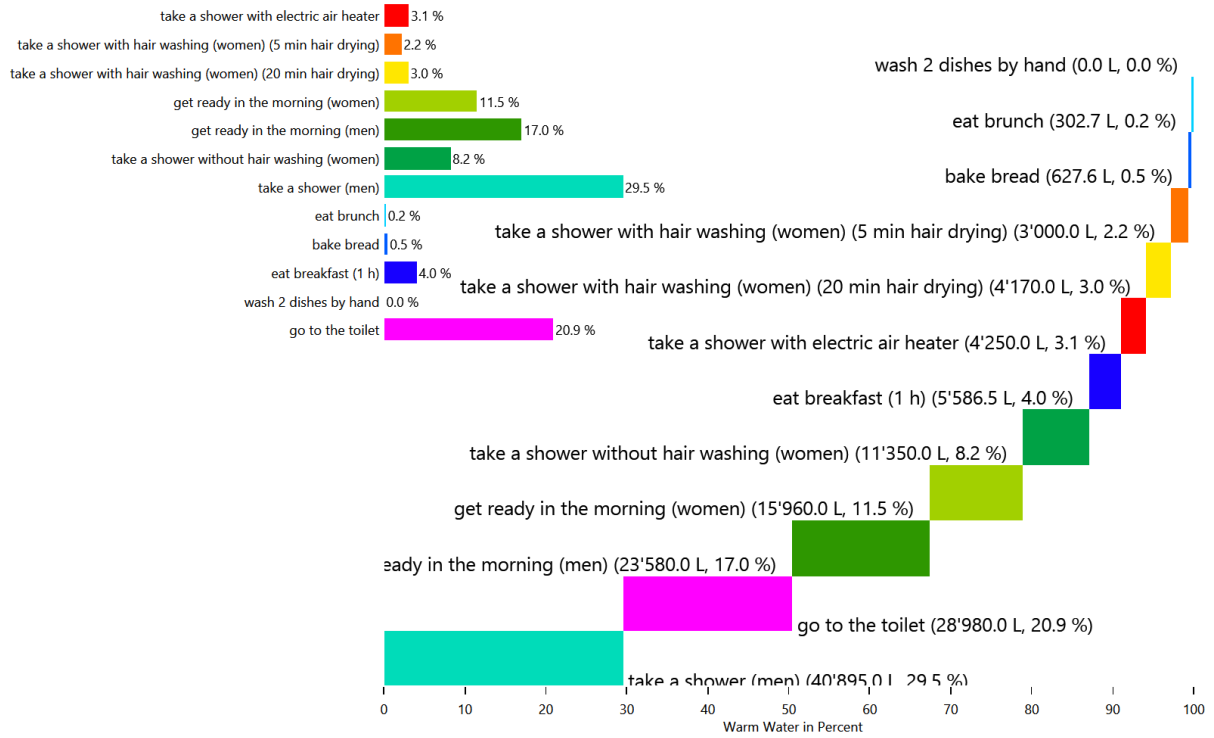
HH0 - Electricity



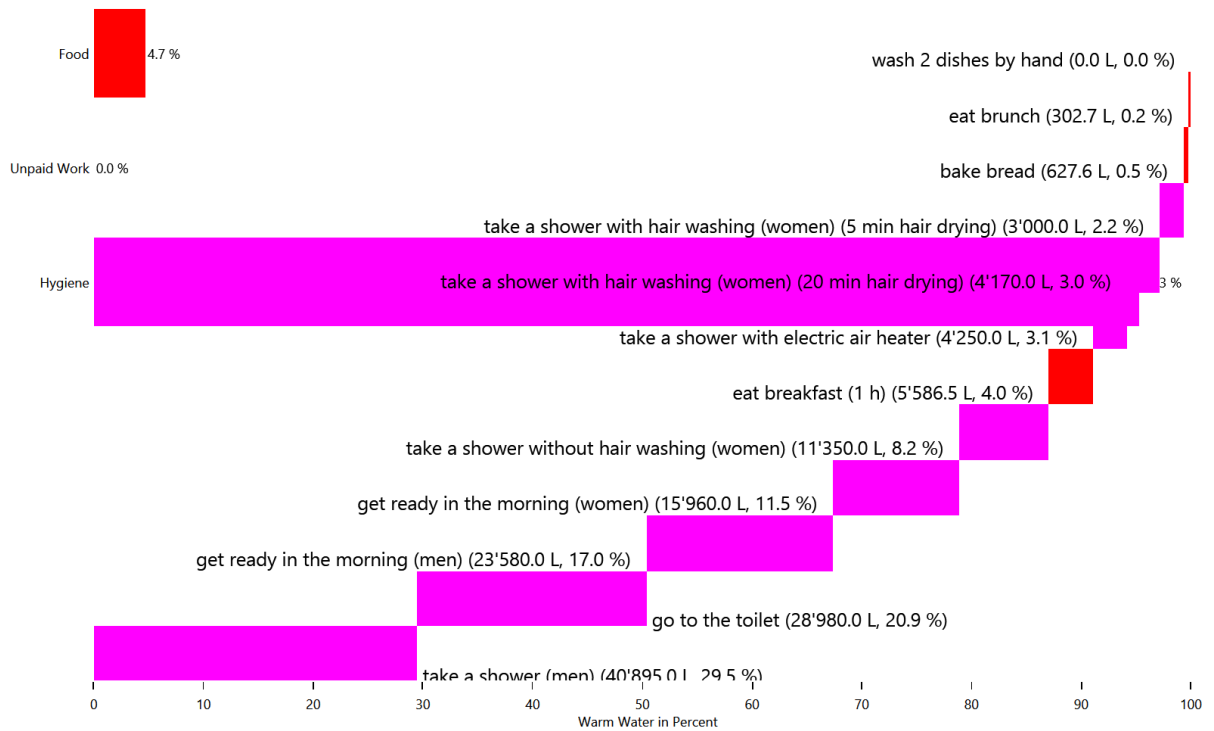
HH0 - Warm Water



HH0 - Warm Water



HH0 - Warm Water

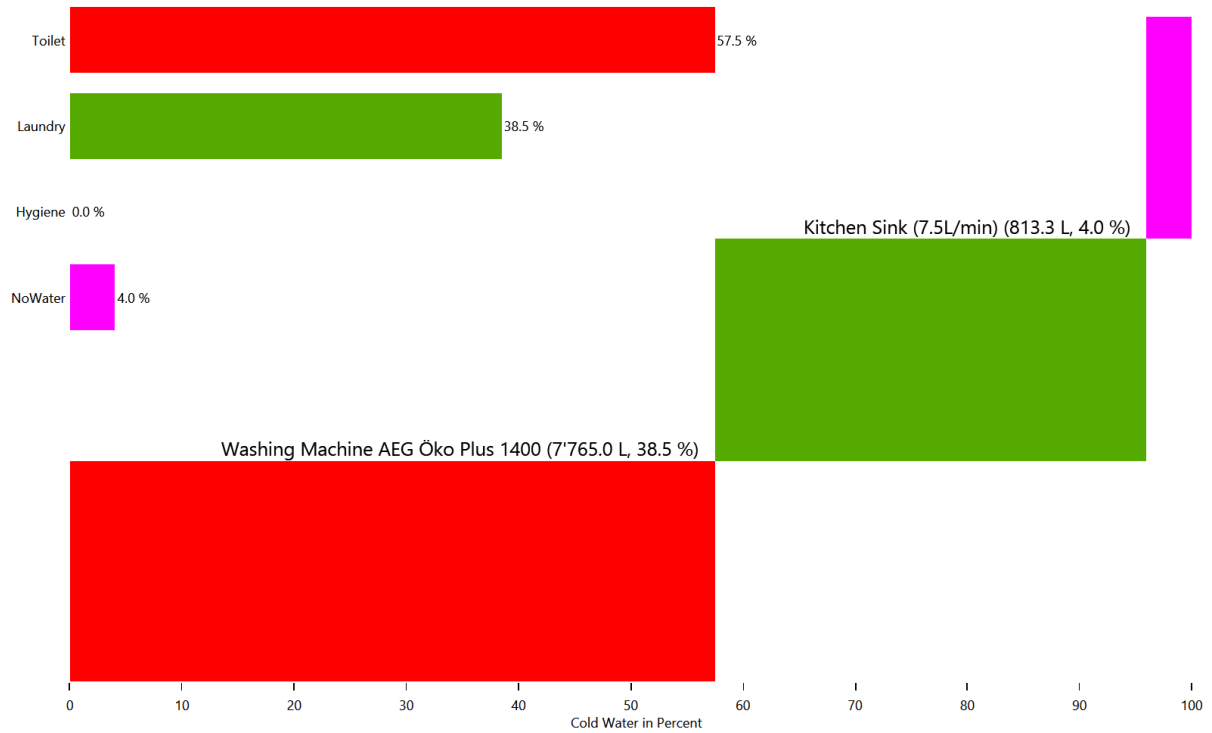


Energy use for each load type for each device

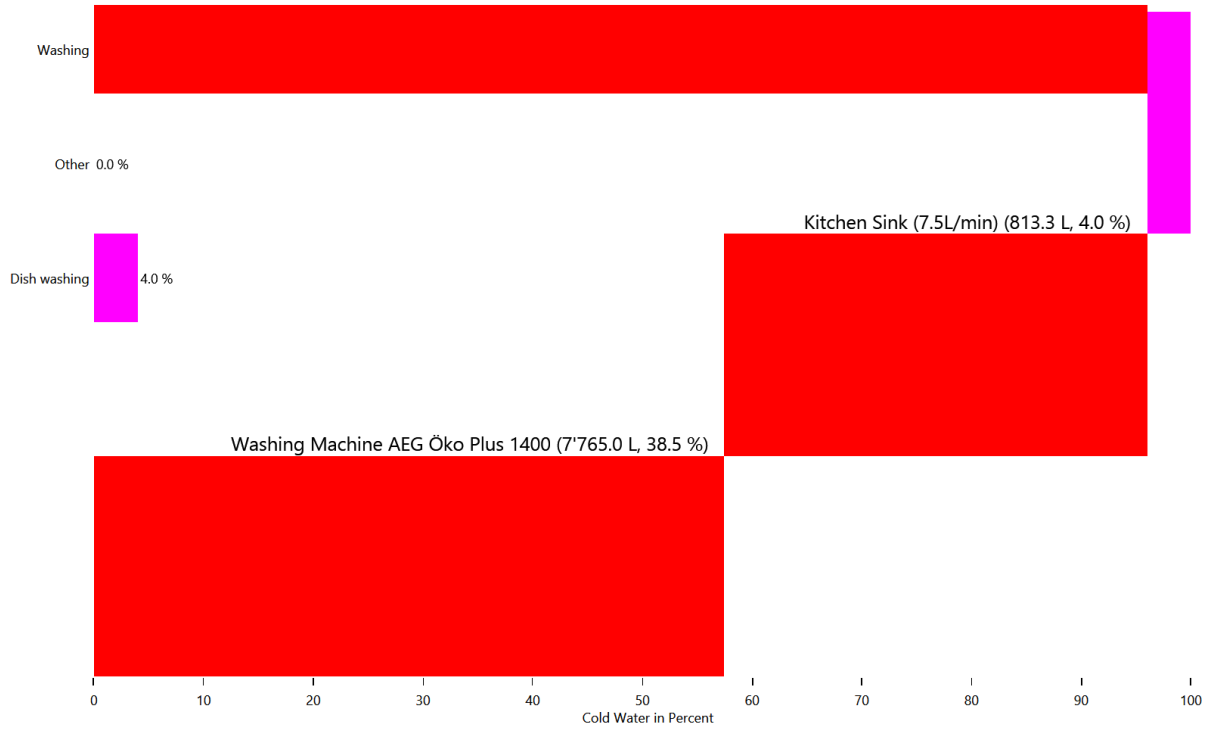
This is made from the files starting with: DeviceSums

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

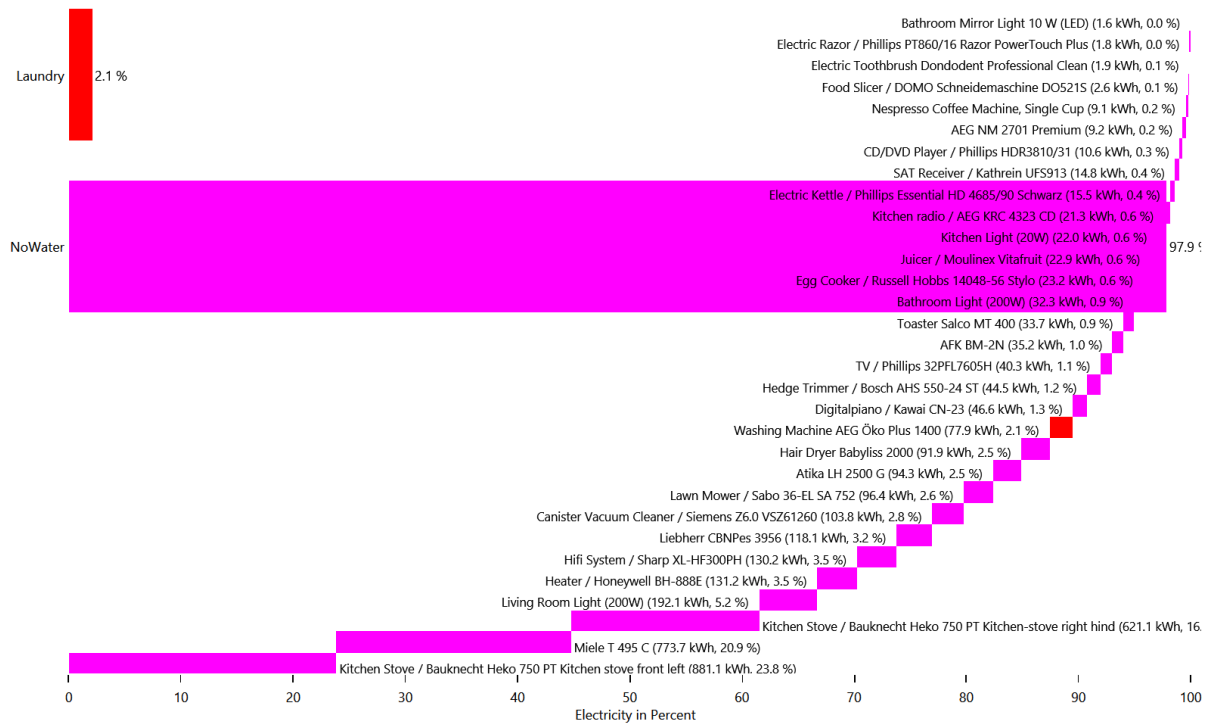
Cold Water



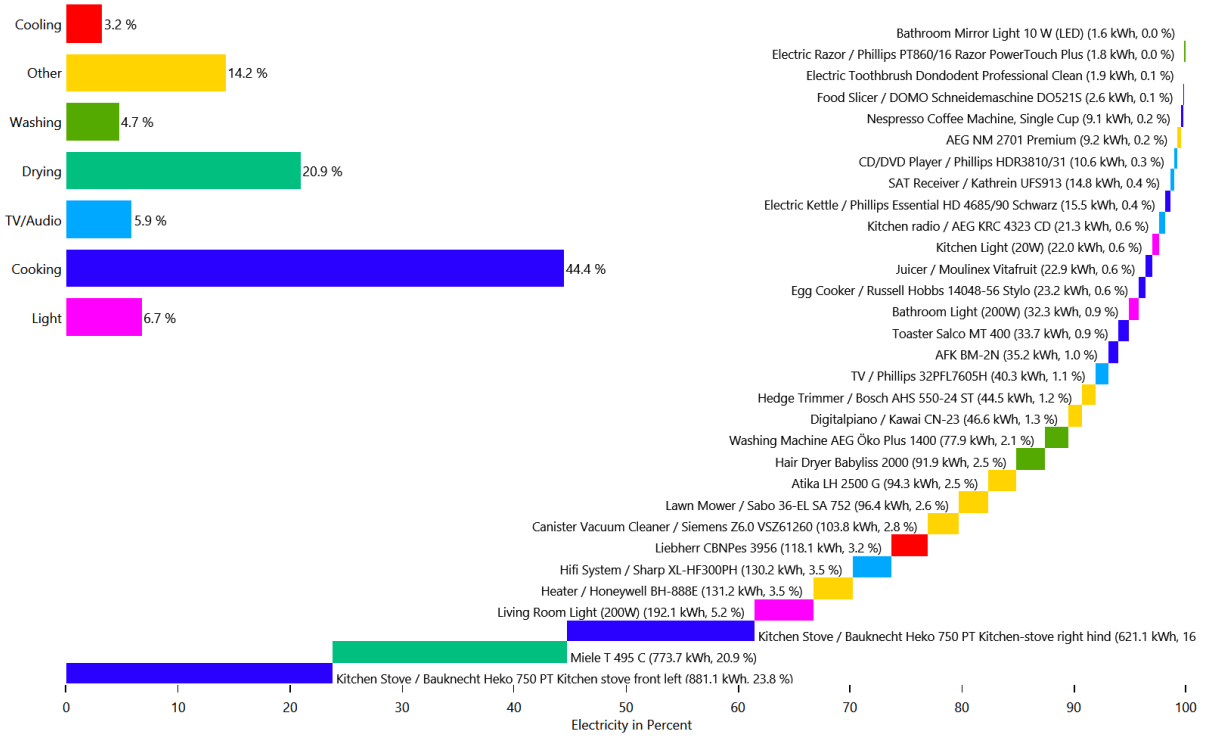
Cold Water



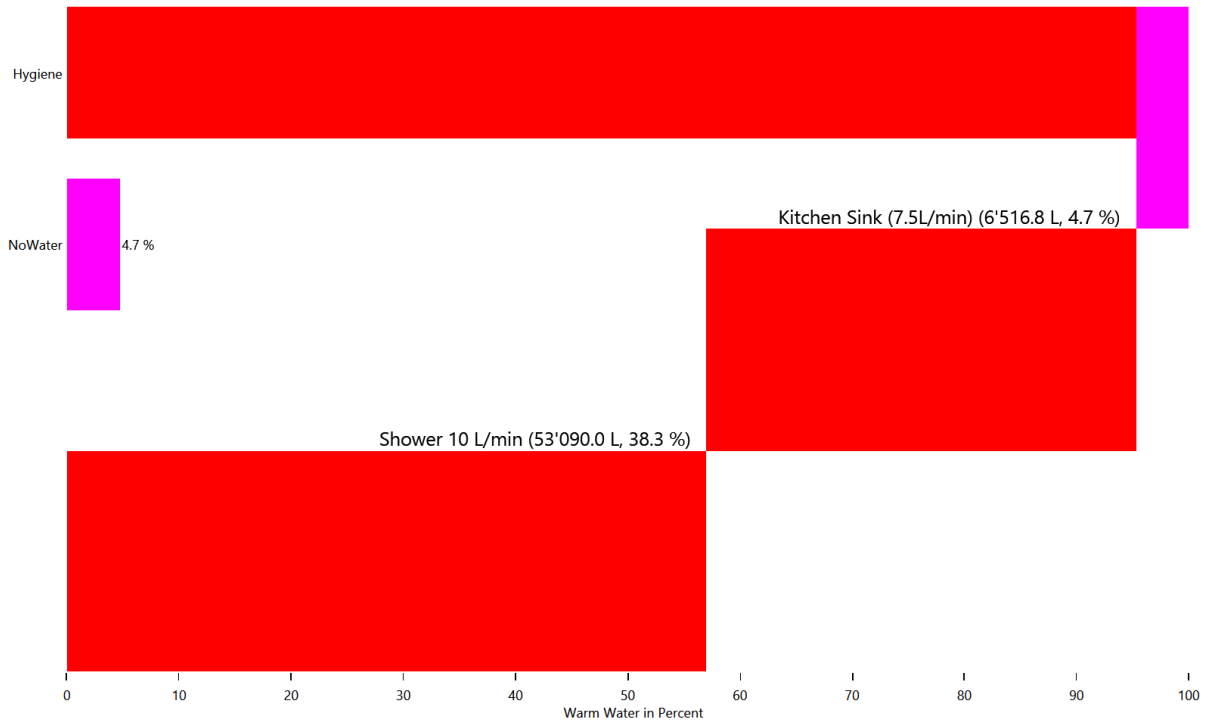
Electricity



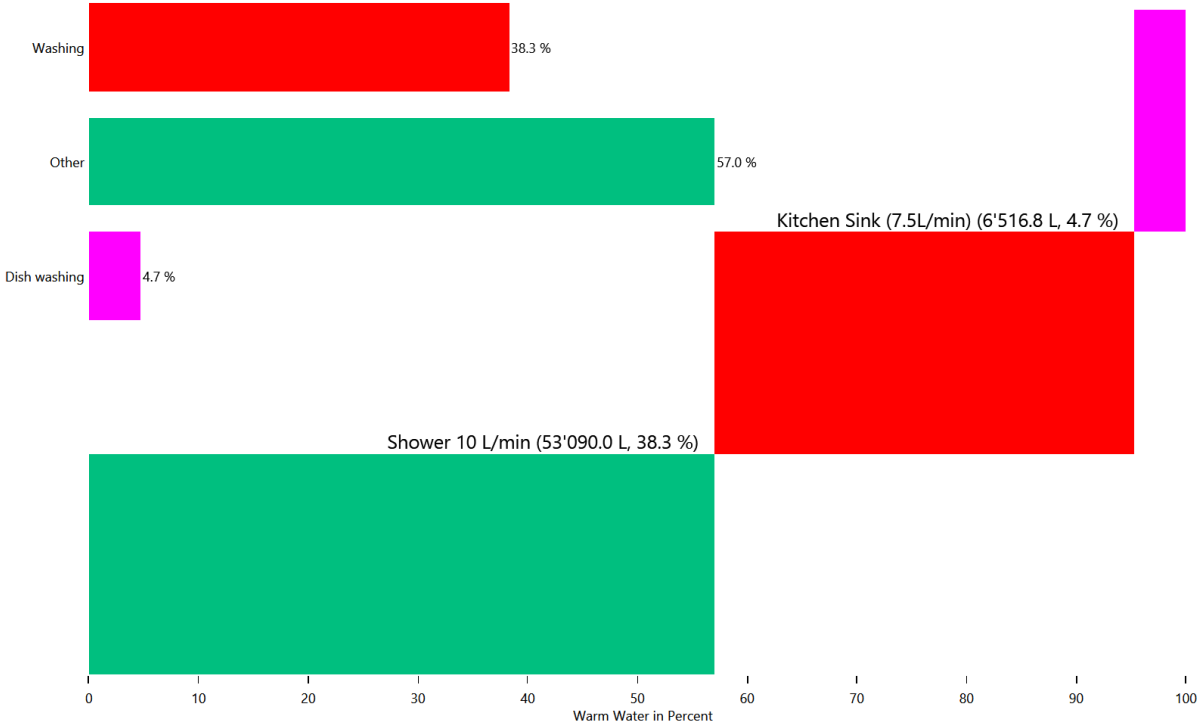
Electricity



Warm Water



Warm Water

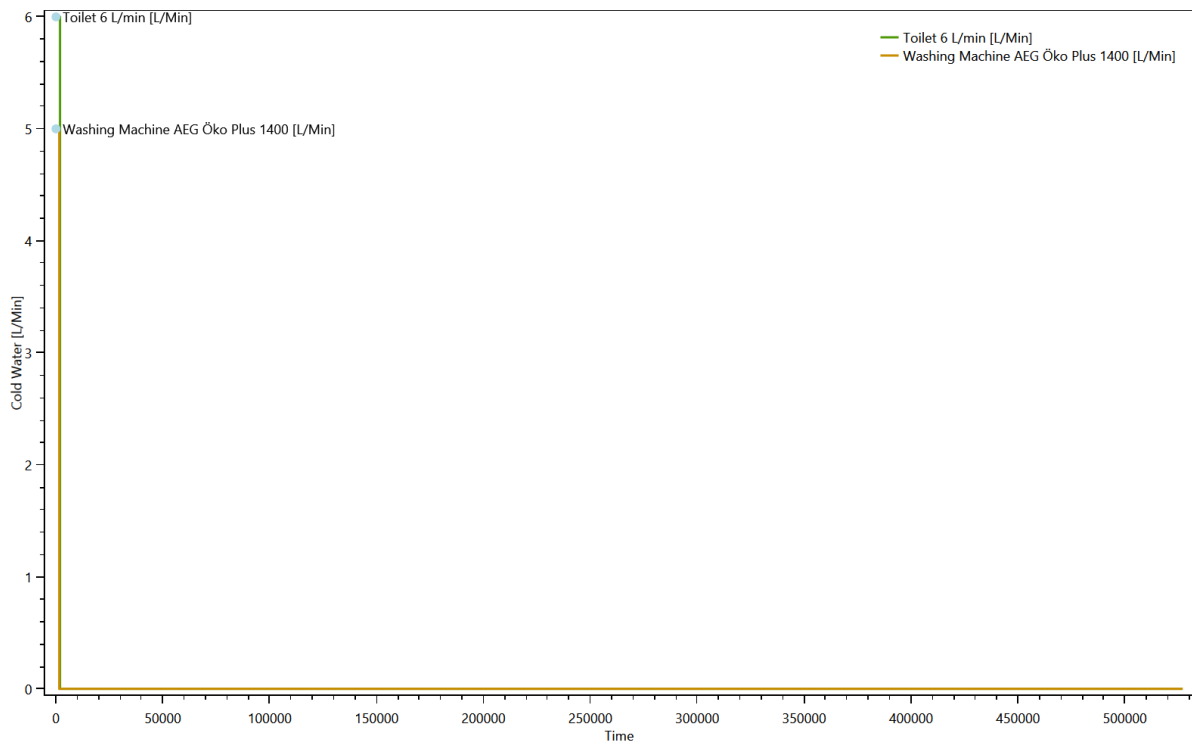


Duration curve for each device for each load type

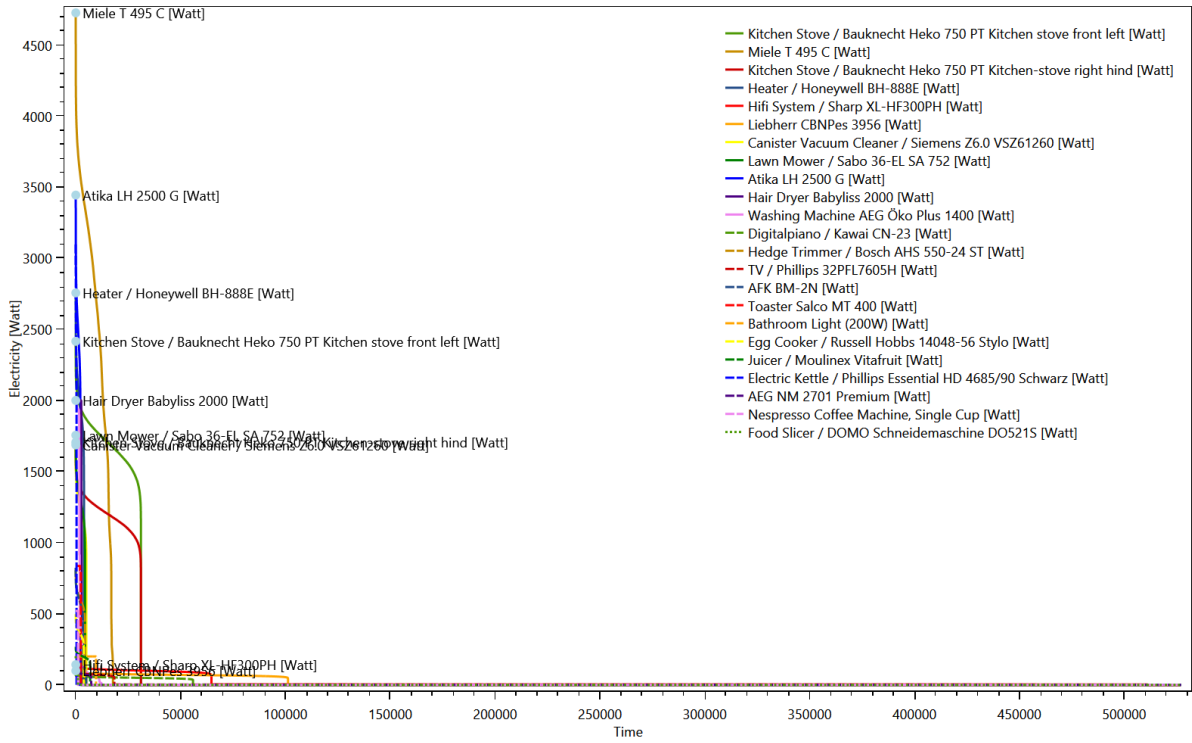
This is made from the files starting with: DeviceDurationCurves

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

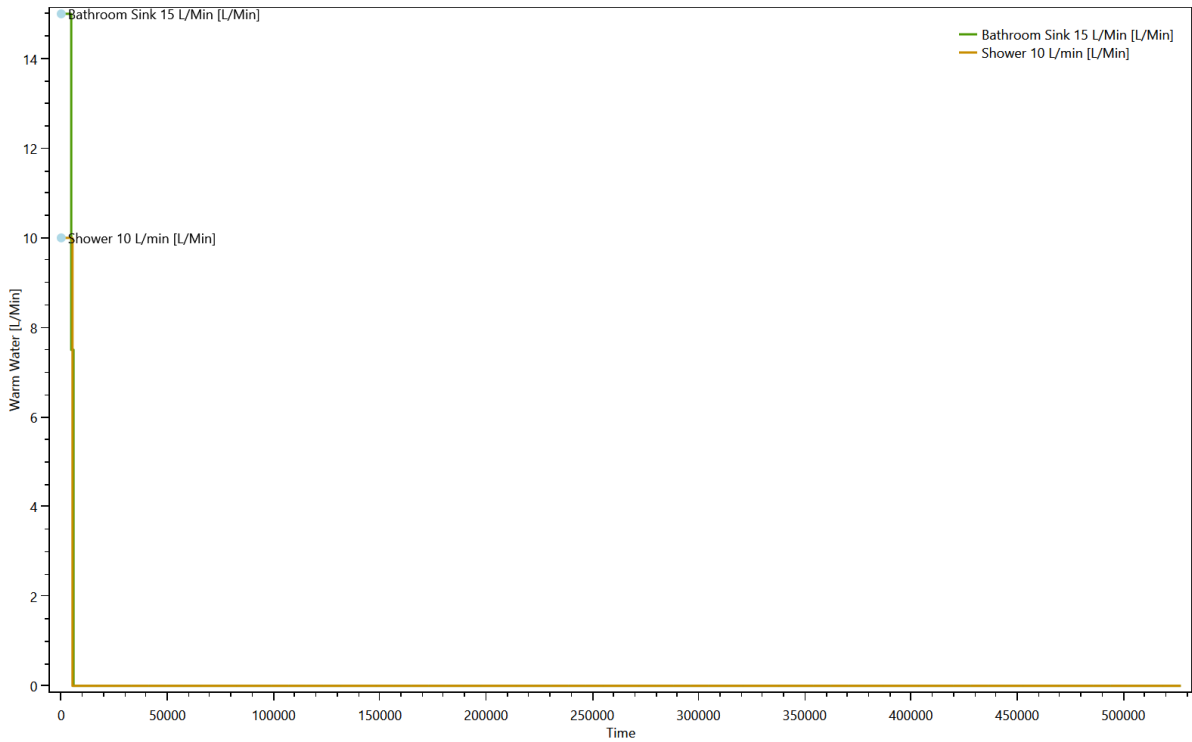
Cold Water



Electricity



Warm Water

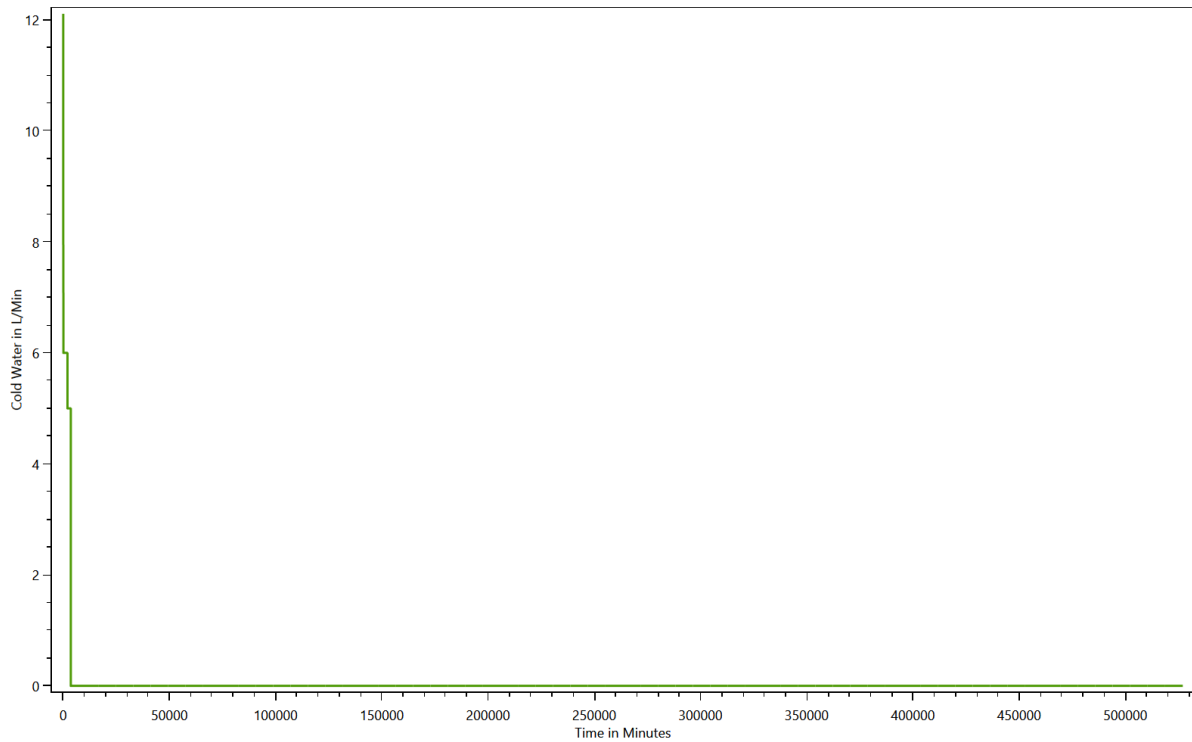


Duration curve for each load type

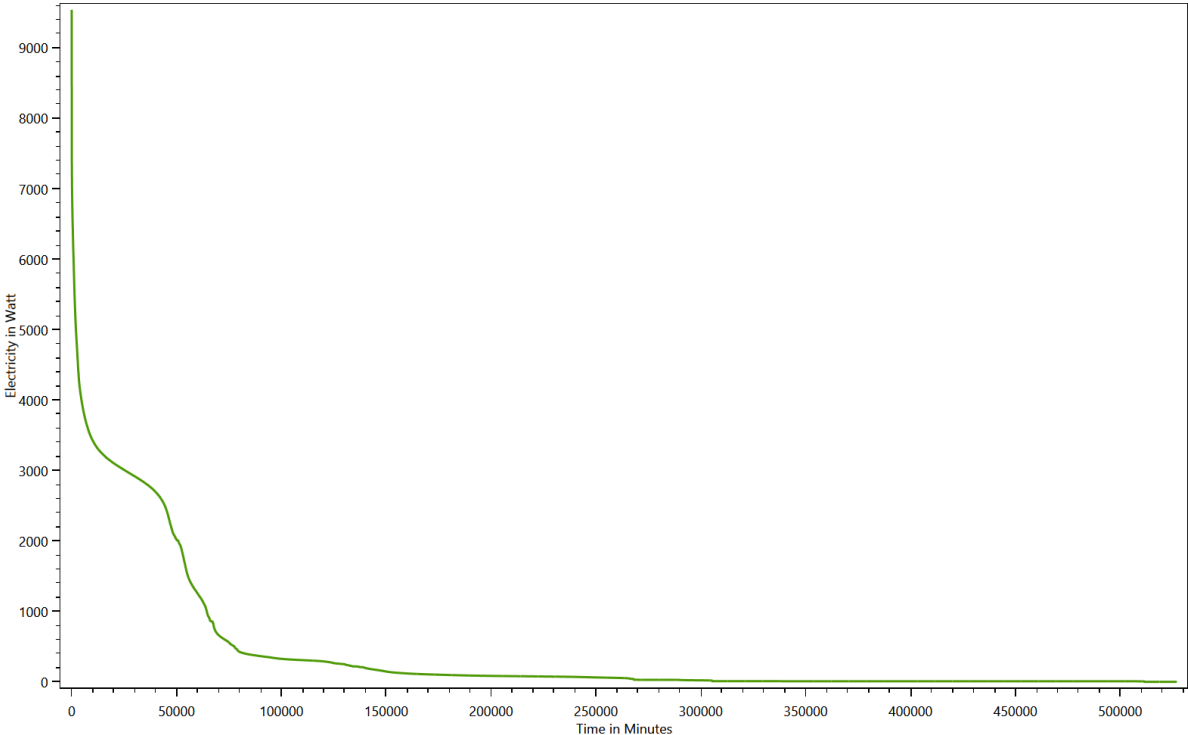
This is made from the files starting with: **DurationCurve**

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

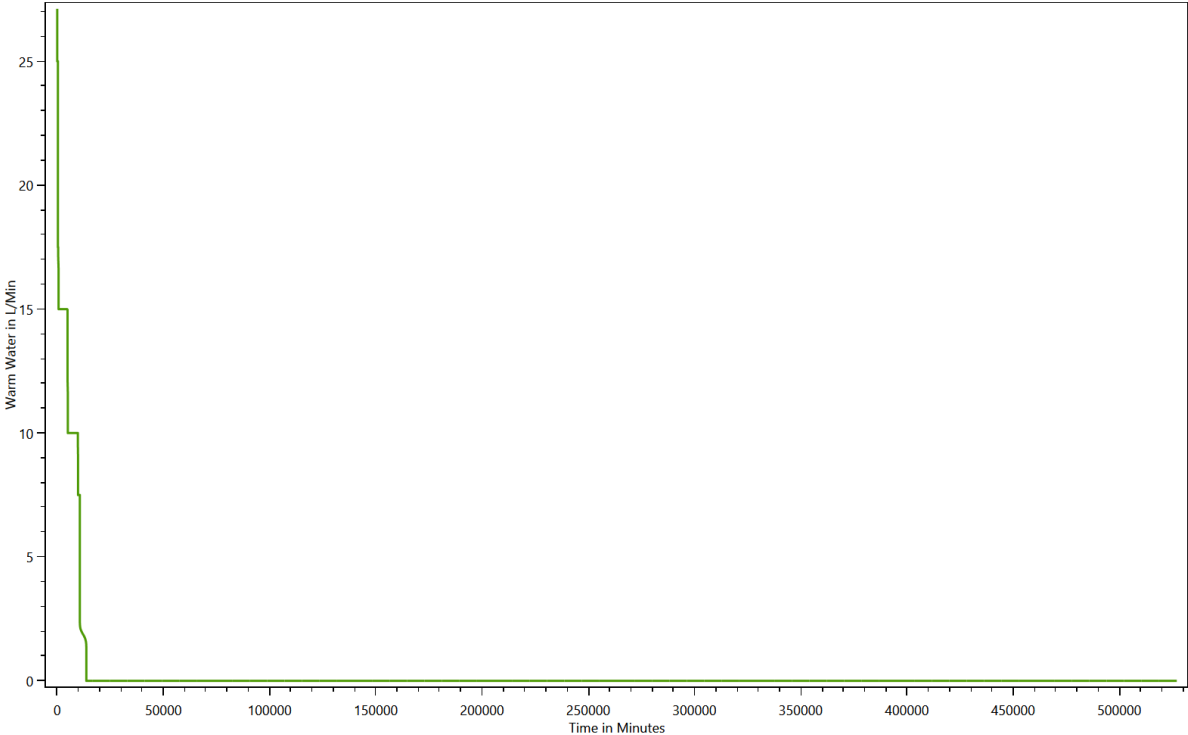
Cold Water



Electricity



Warm Water

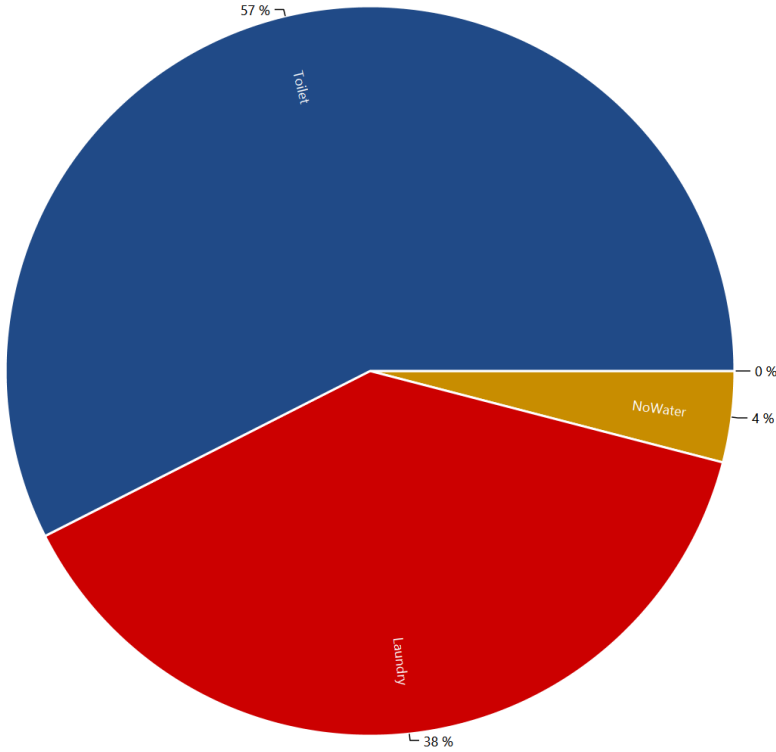


Grouped energy use for each load type for each device

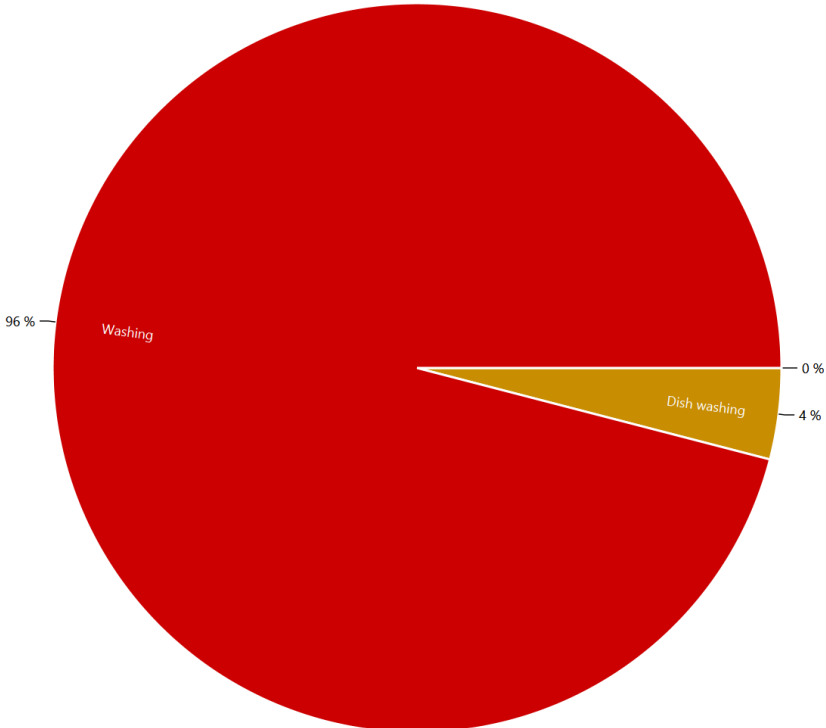
This is made from the files starting with: DeviceTaggingSet

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

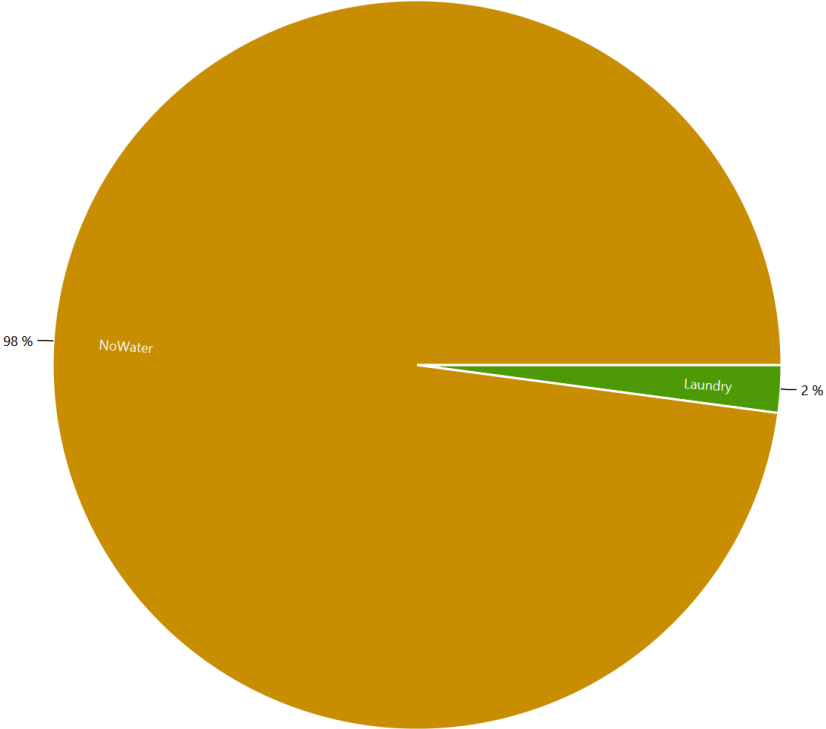
HH0 - Destatis Water Usage Statistics - Cold Water



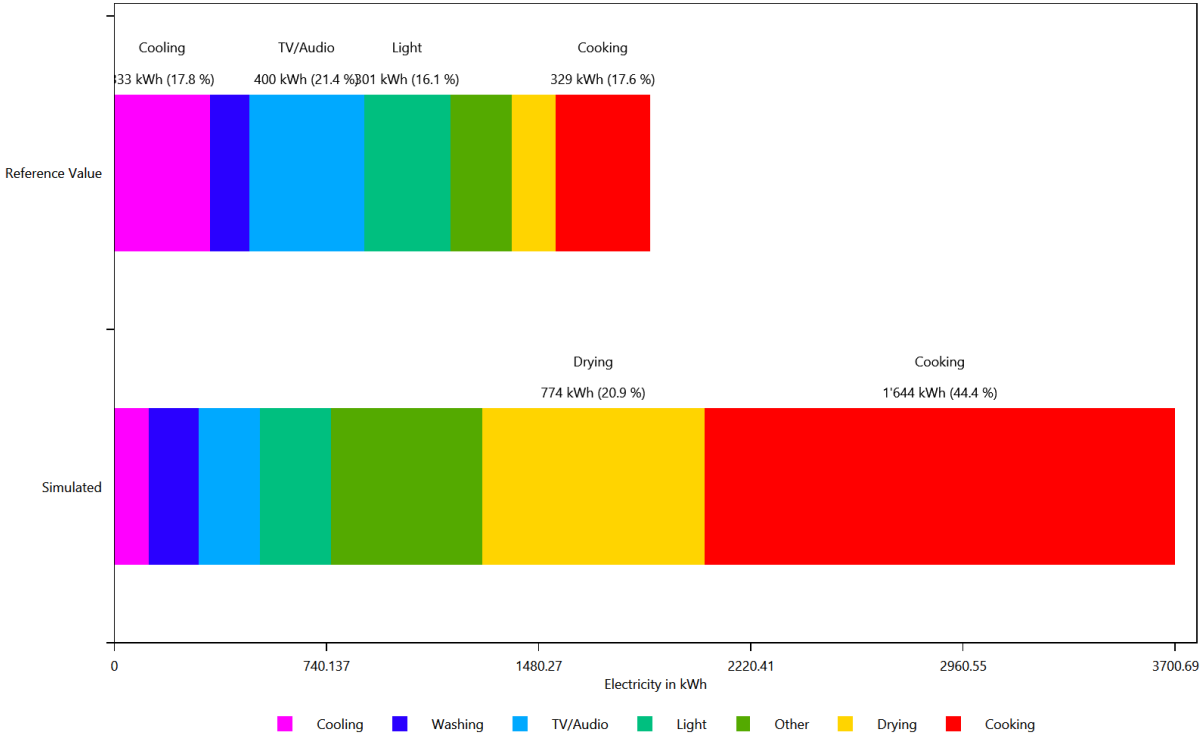
HH0 - Energieagentur - Cold Water



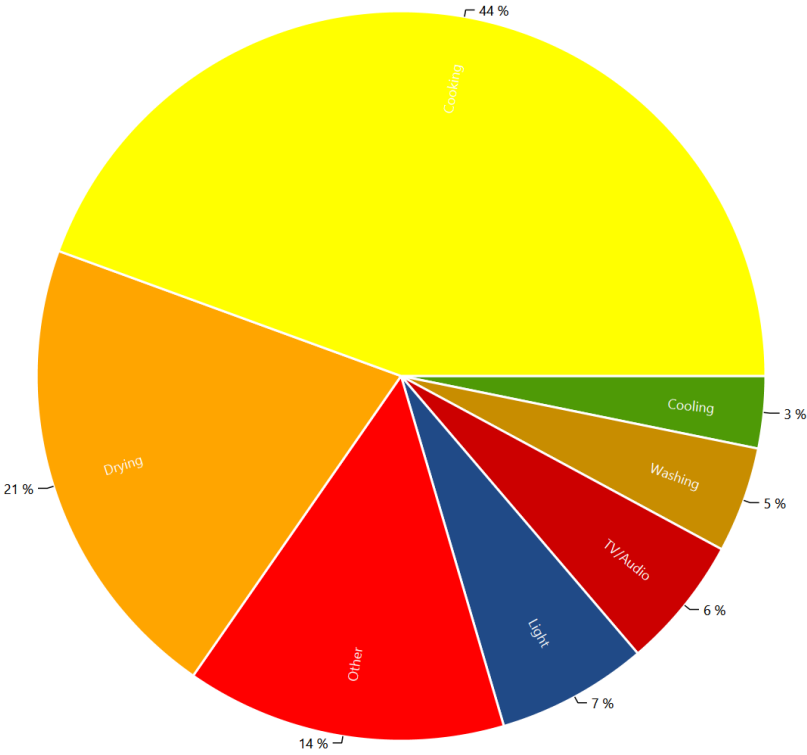
HH0 - Destatis Water Usage Statistics - Electricity



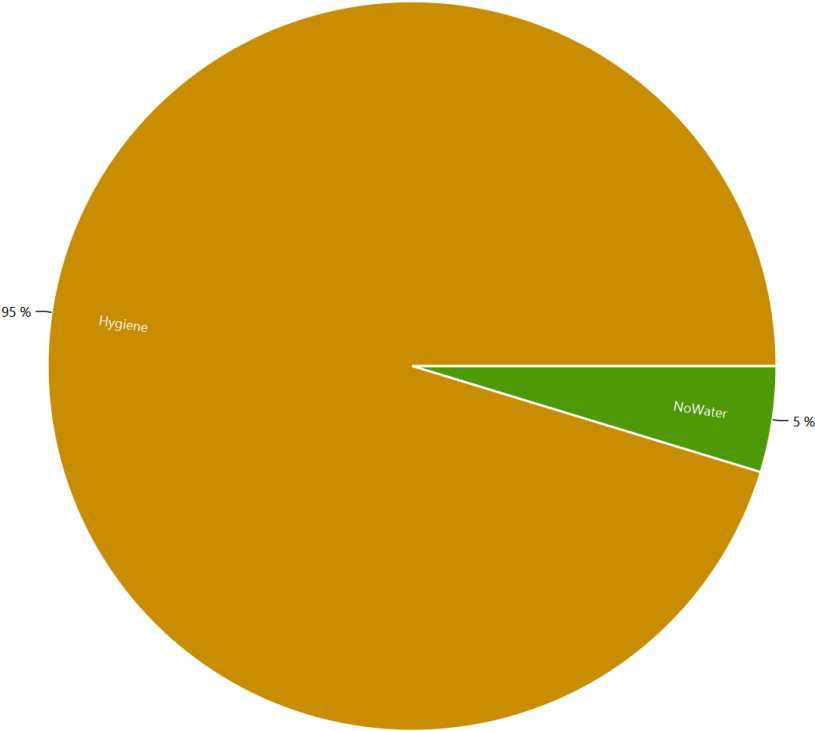
HH0 - Energieagentur - Electricity



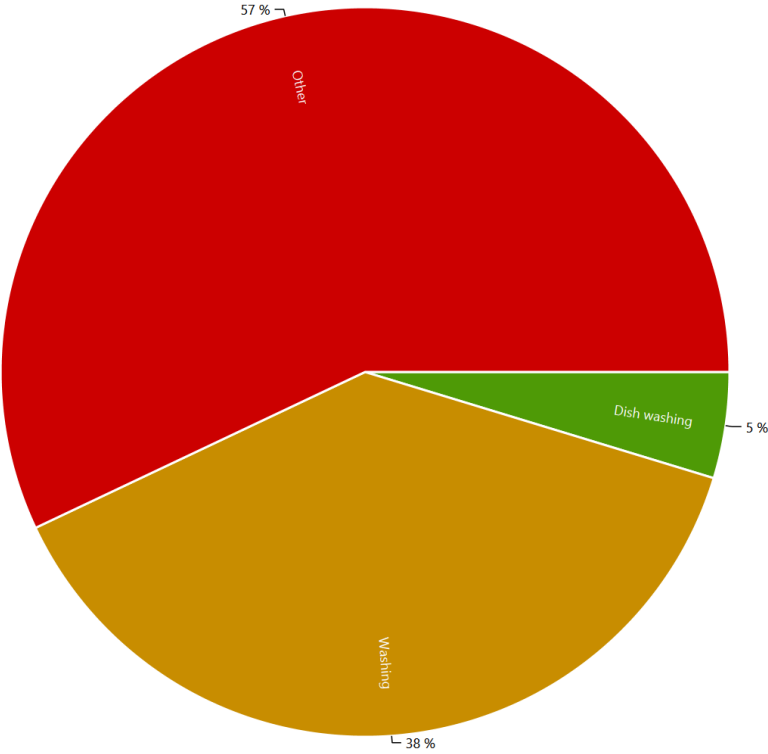
HH0 - Energieagentur - Electricity



HH0 - Destatis Water Usage Statistics - Warm Water



HH0 - Energieagentur - Warm Water

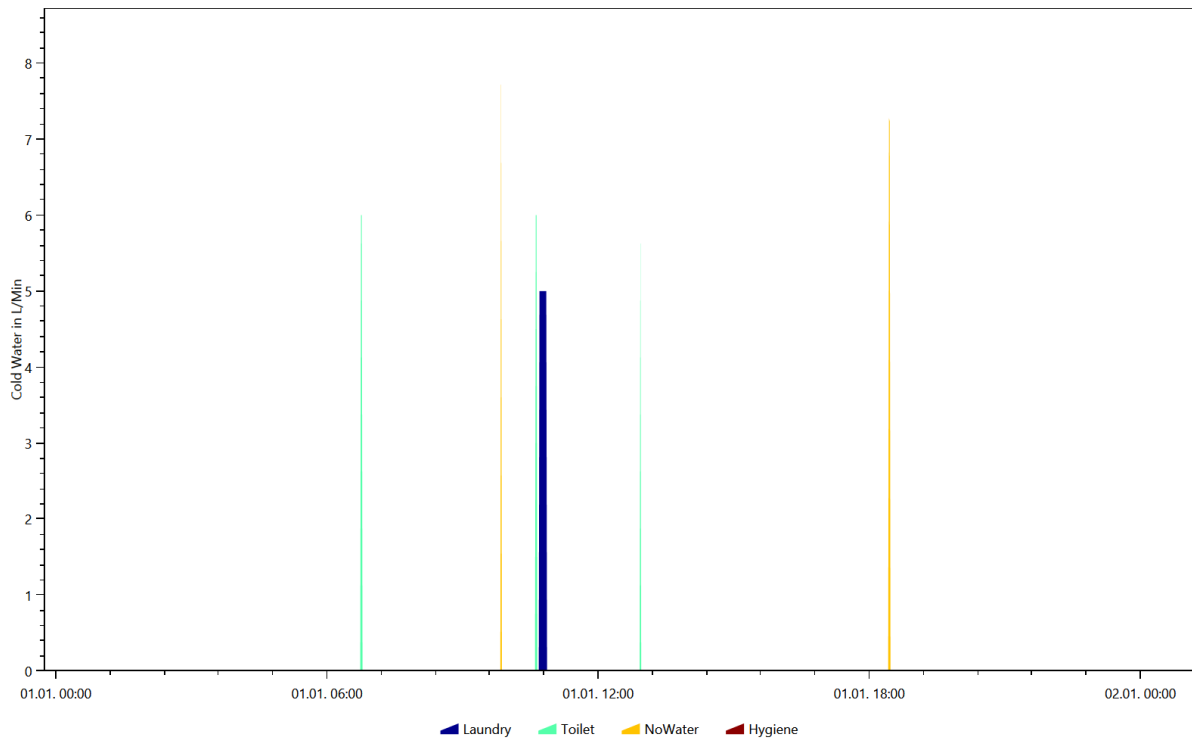


Example of the device profiles for each load type

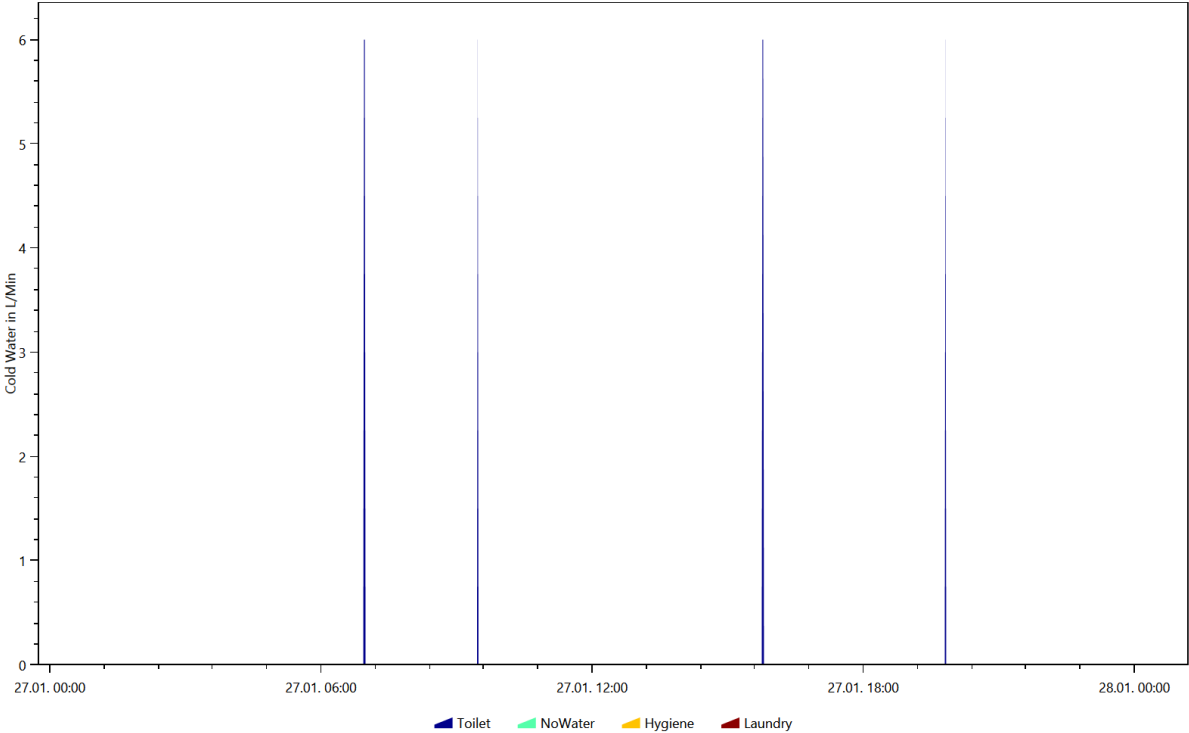
This is made from the files starting with: DeviceProfiles

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

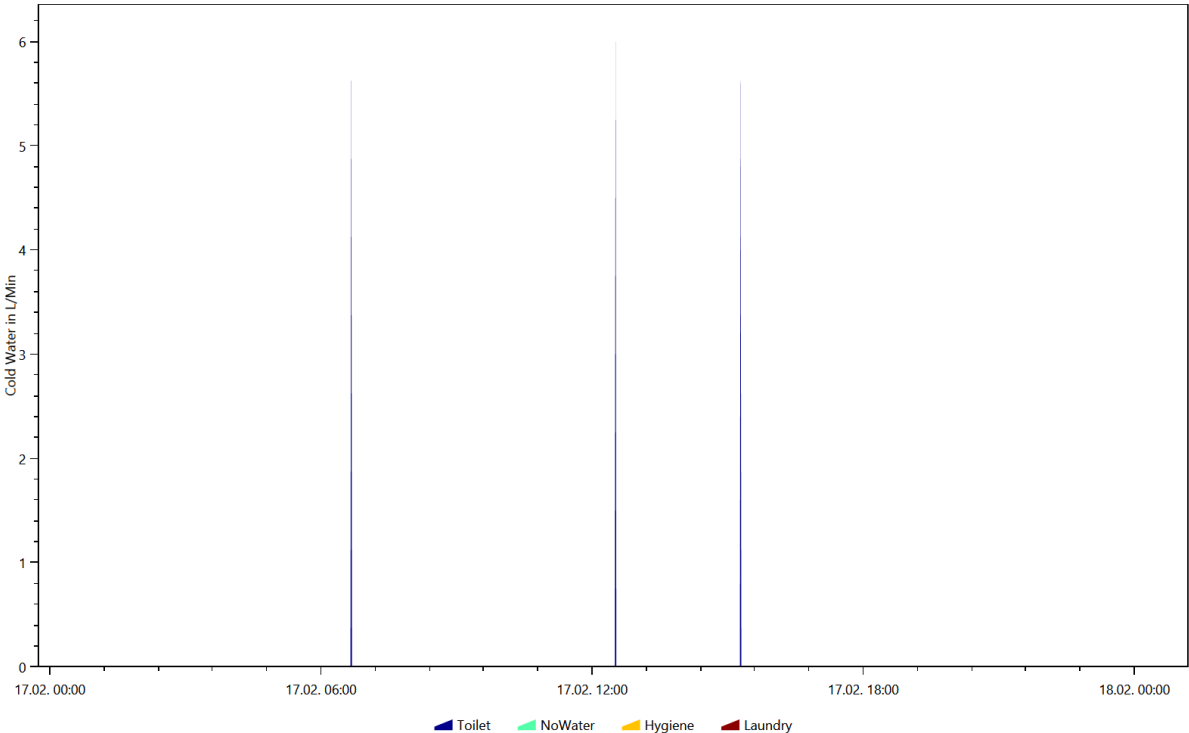
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.1.1



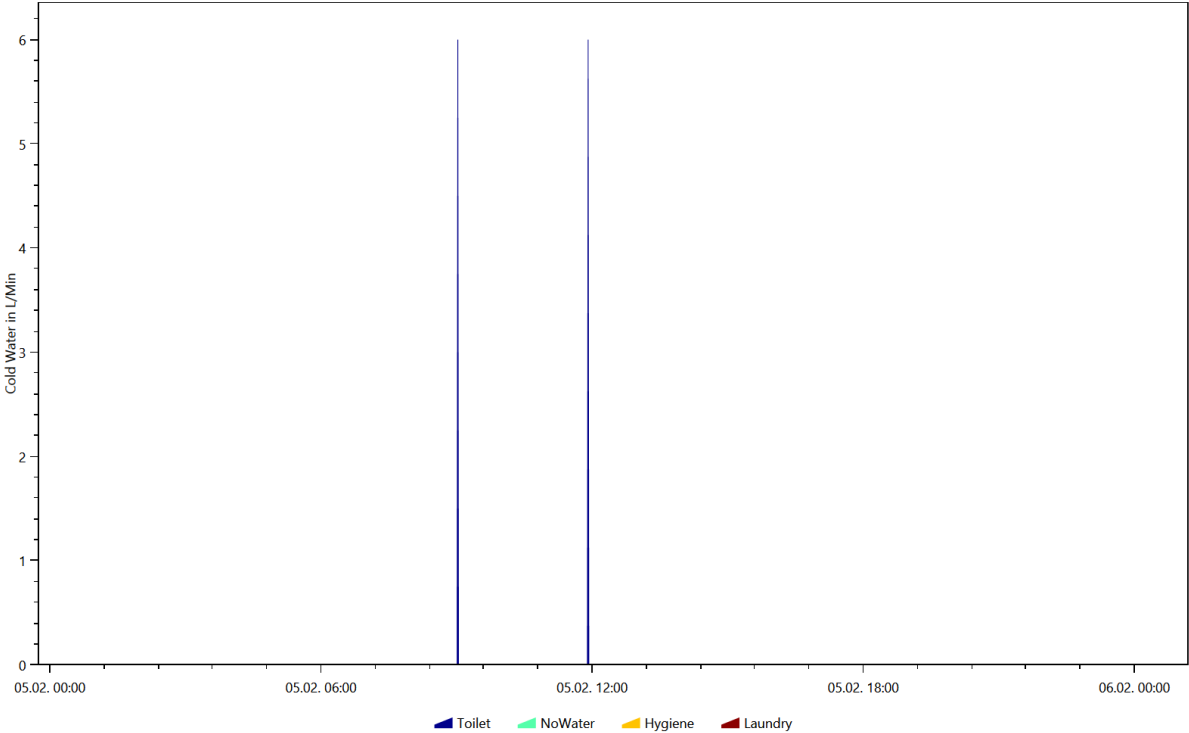
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.1.27



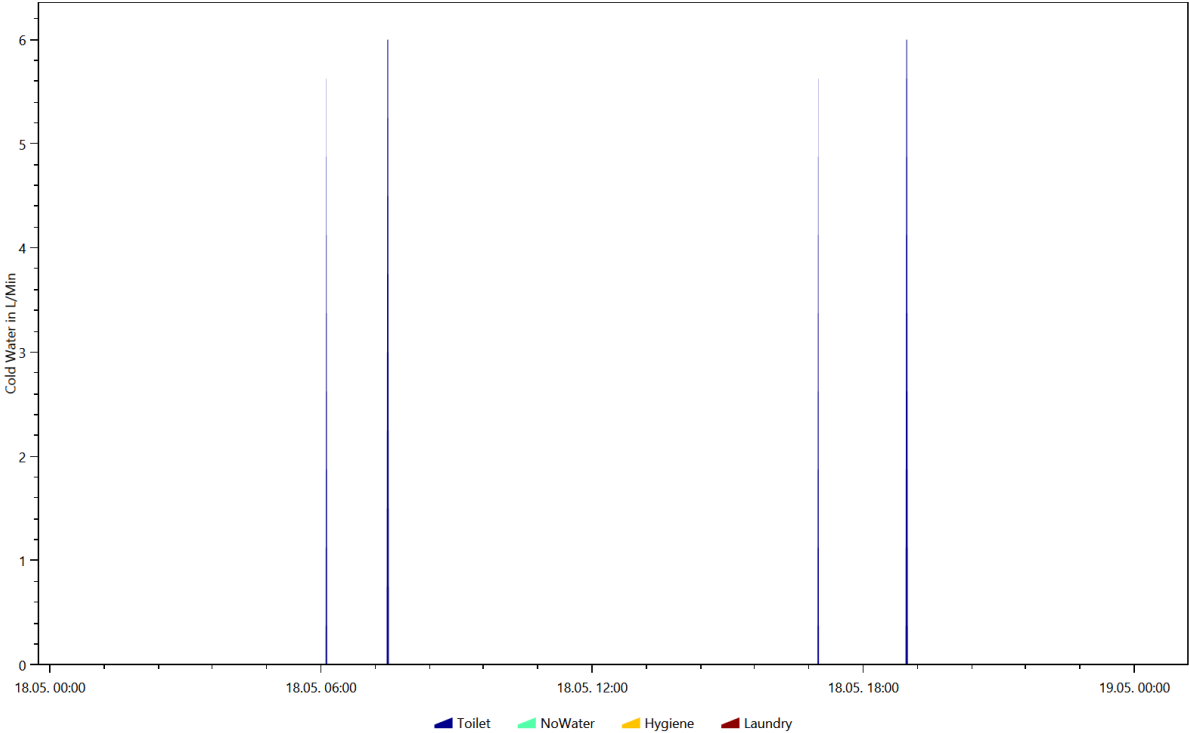
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.2.17



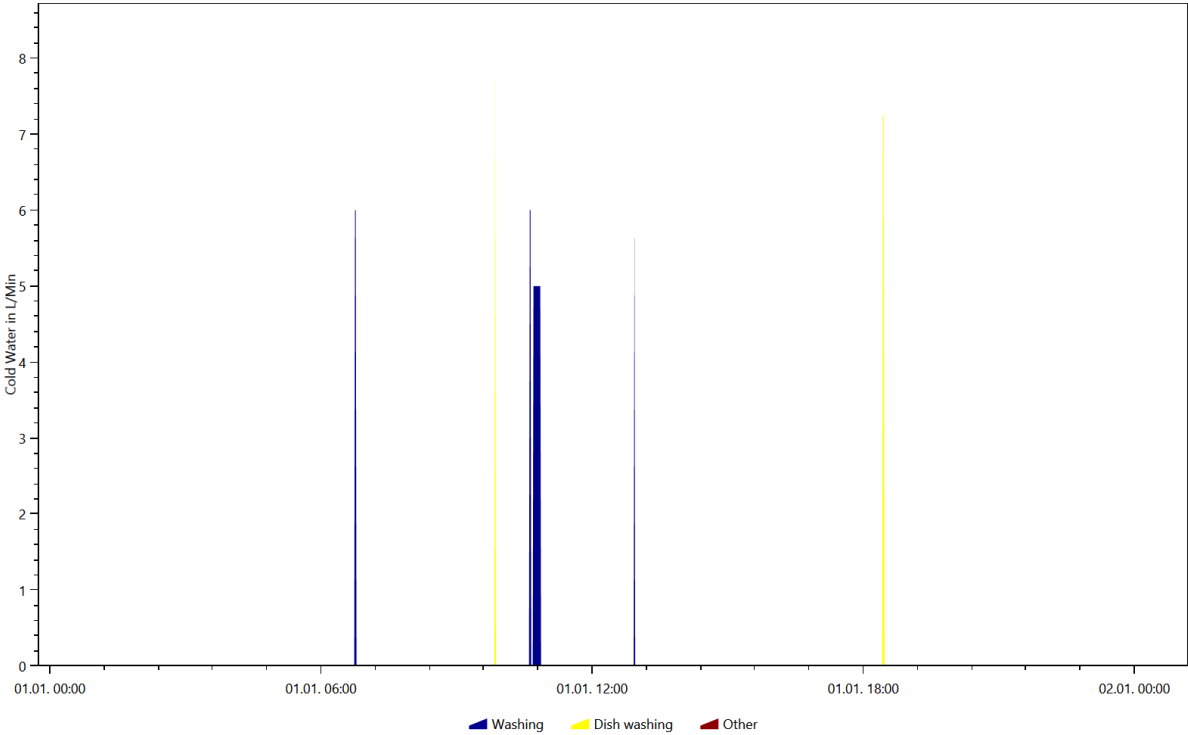
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.2.5



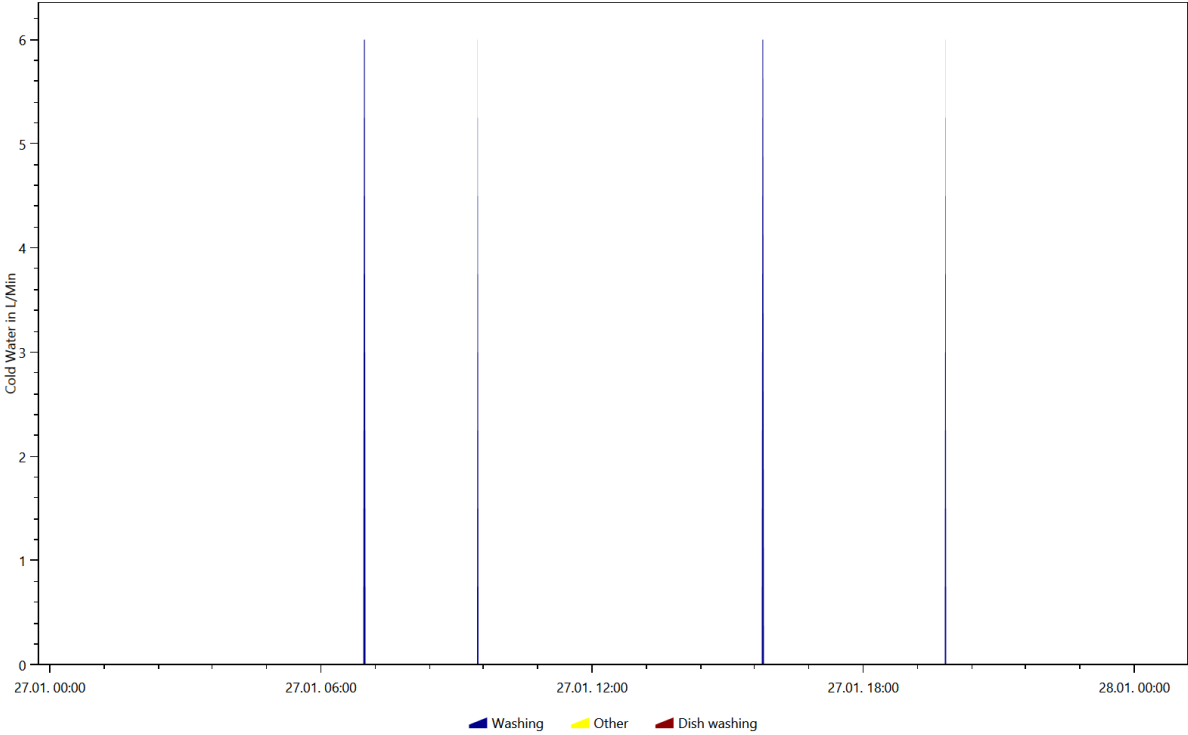
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.5.18



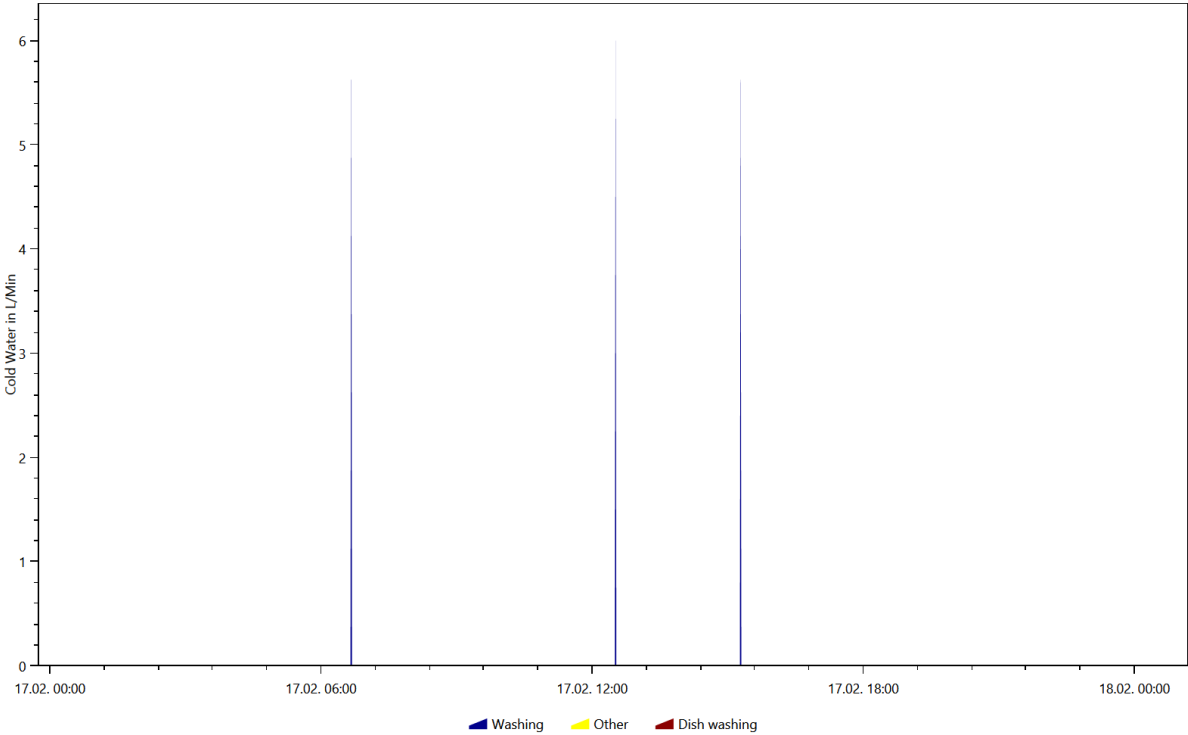
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.1.1



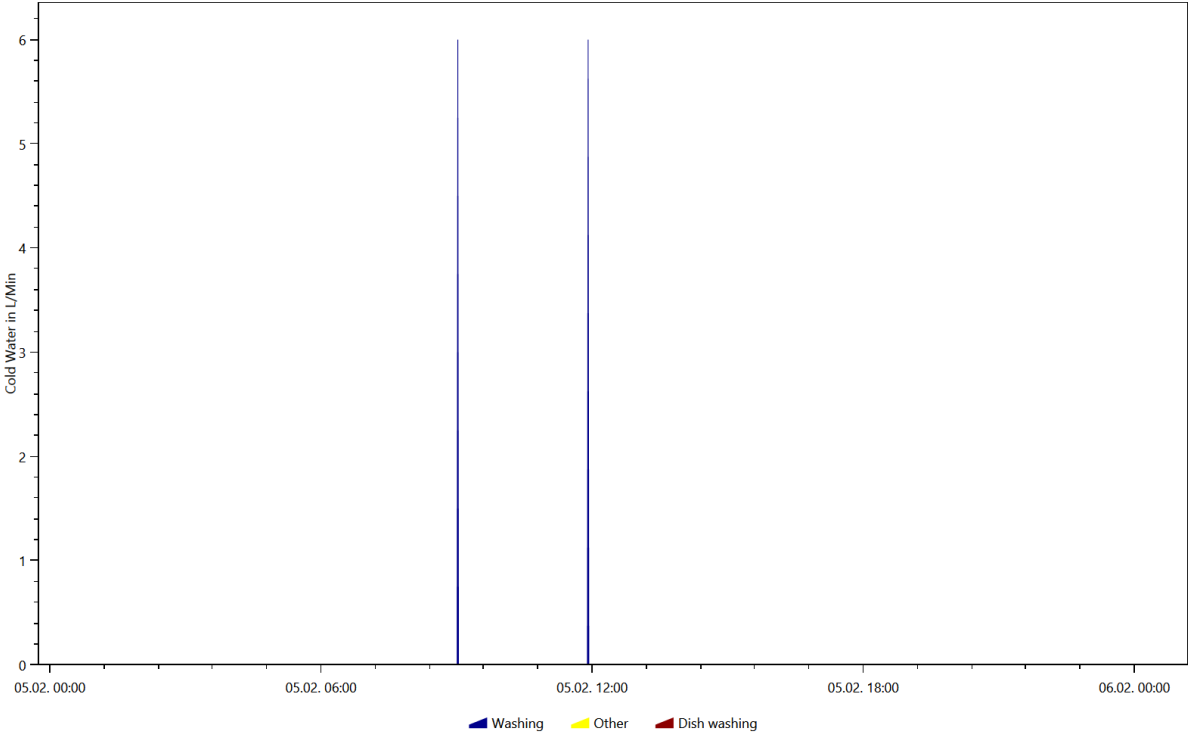
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.1.27



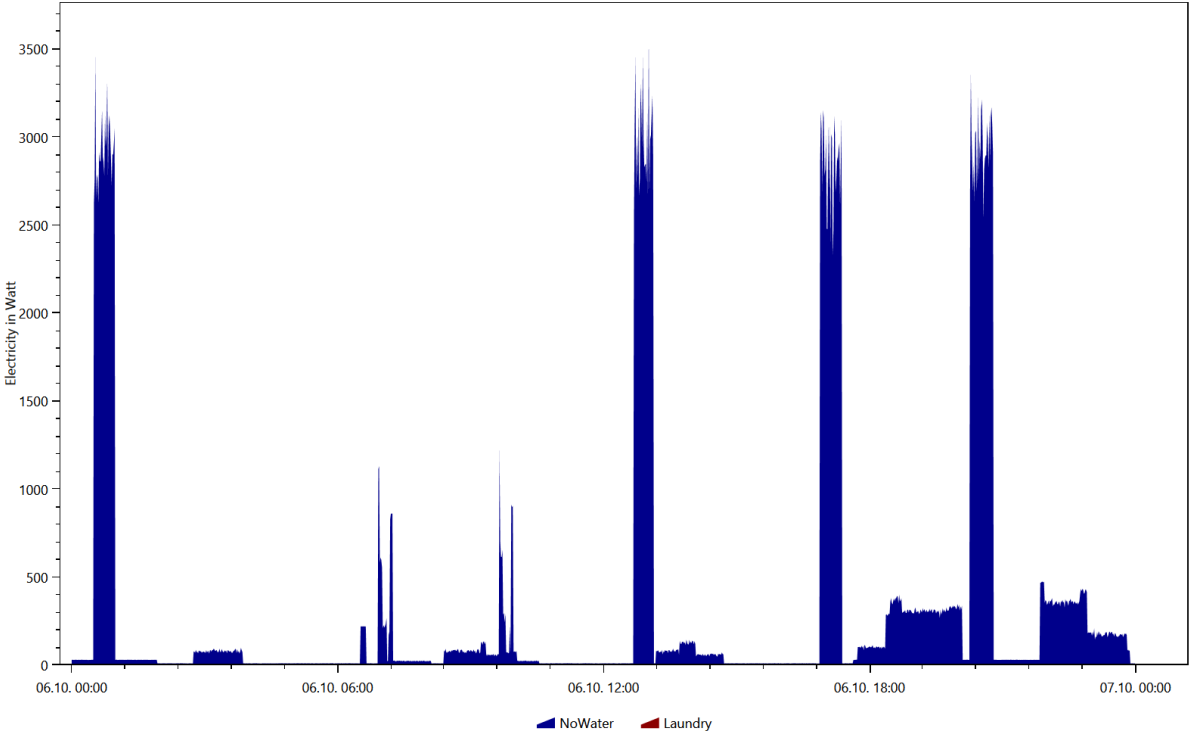
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.2.17



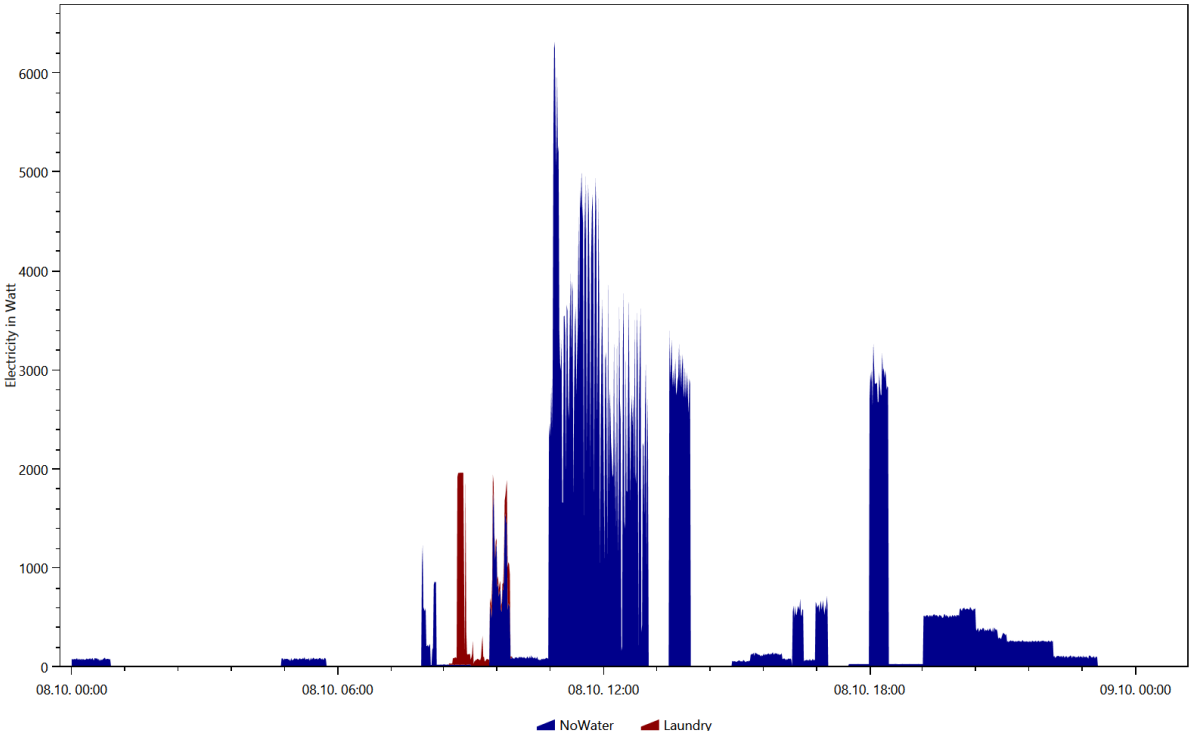
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.2.5



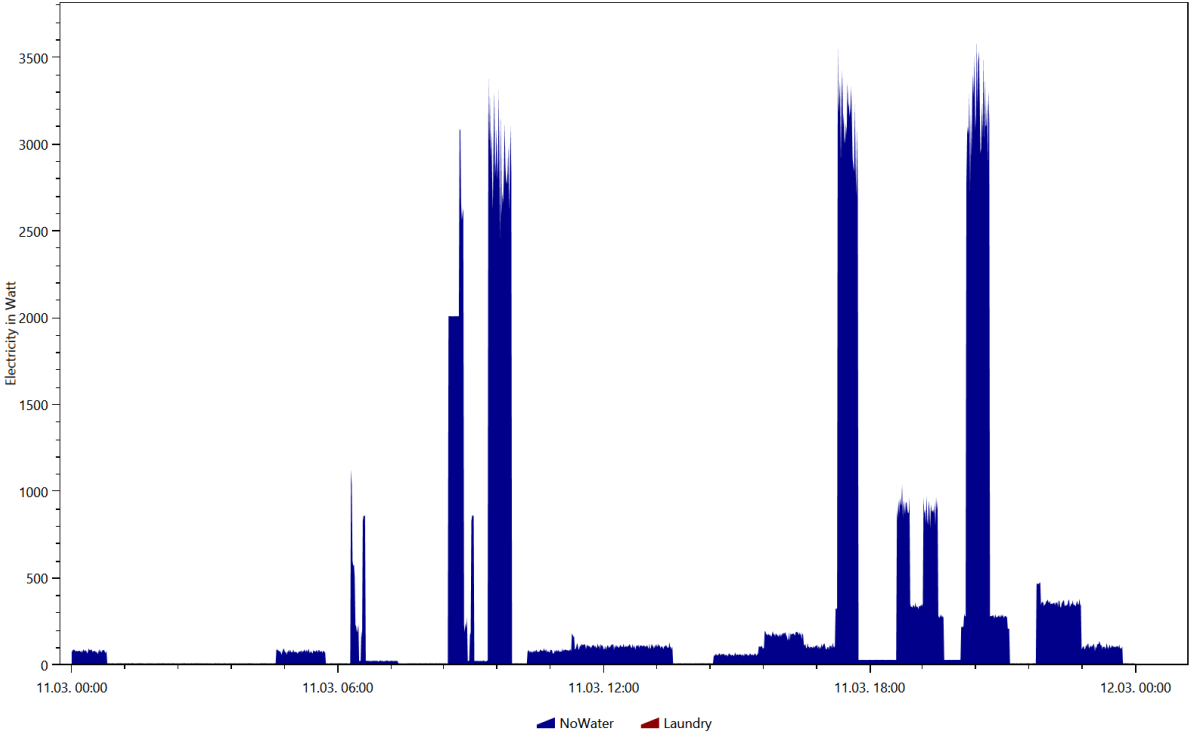
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.10.6



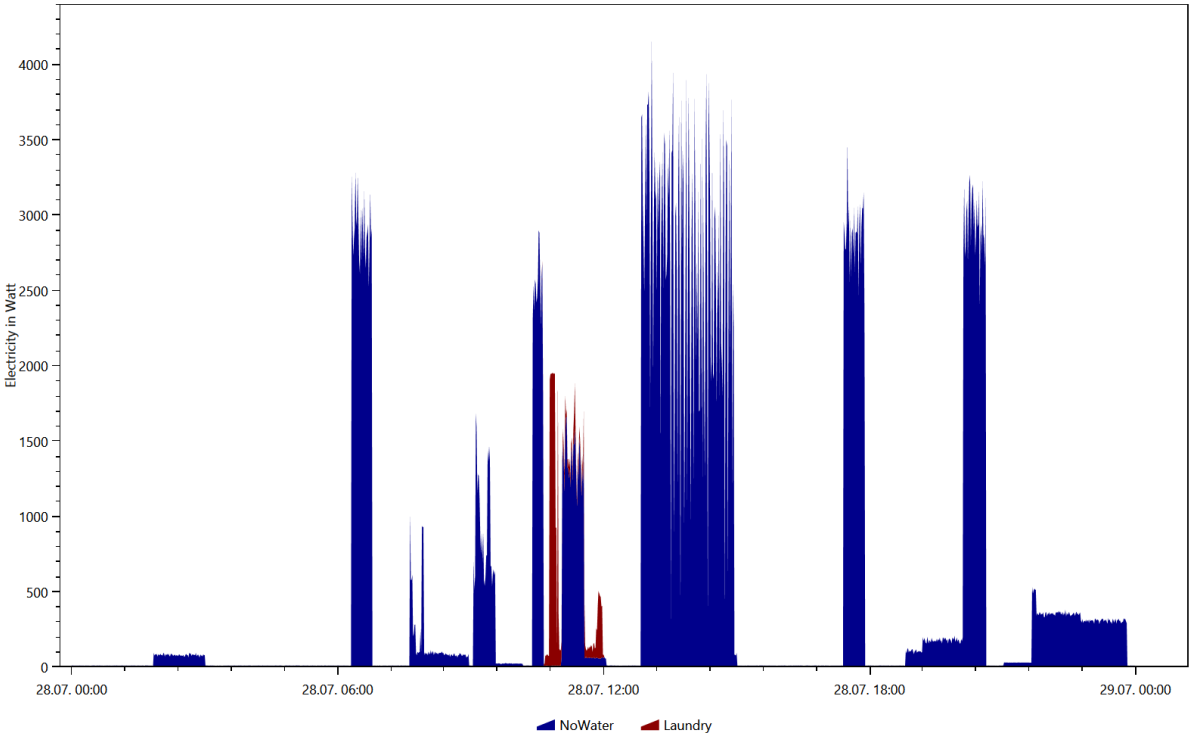
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.10.8



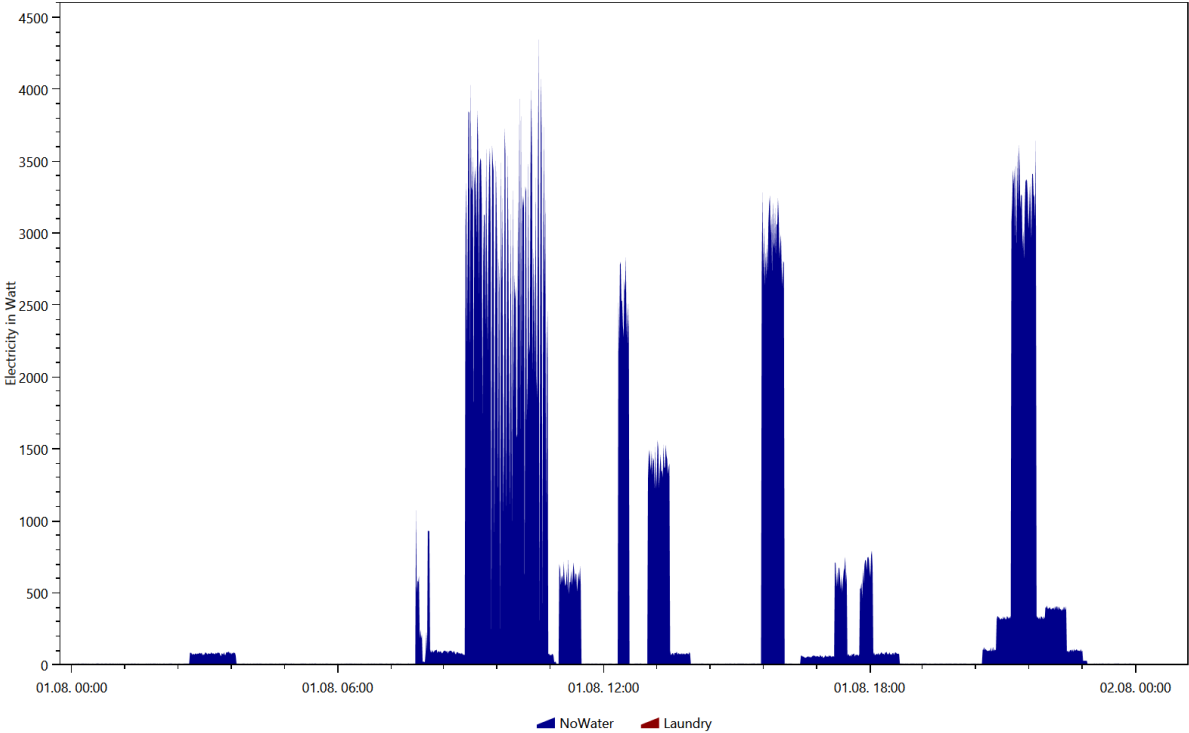
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.3.11



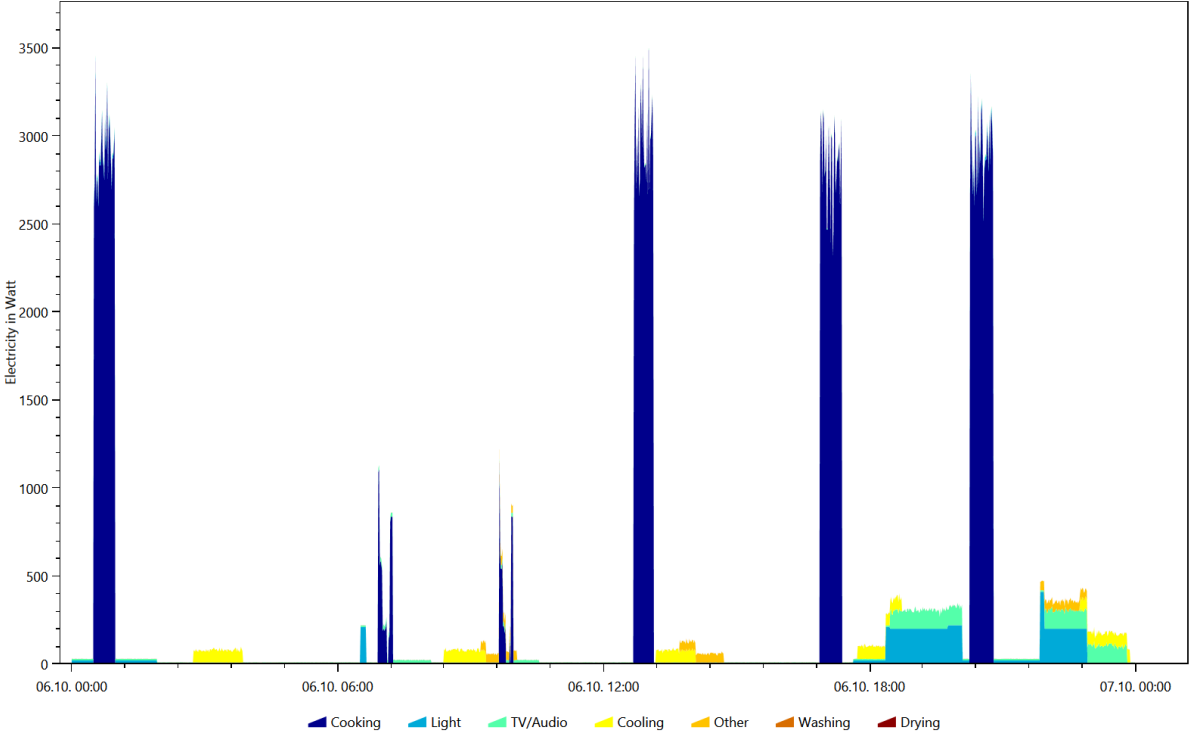
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.7.28



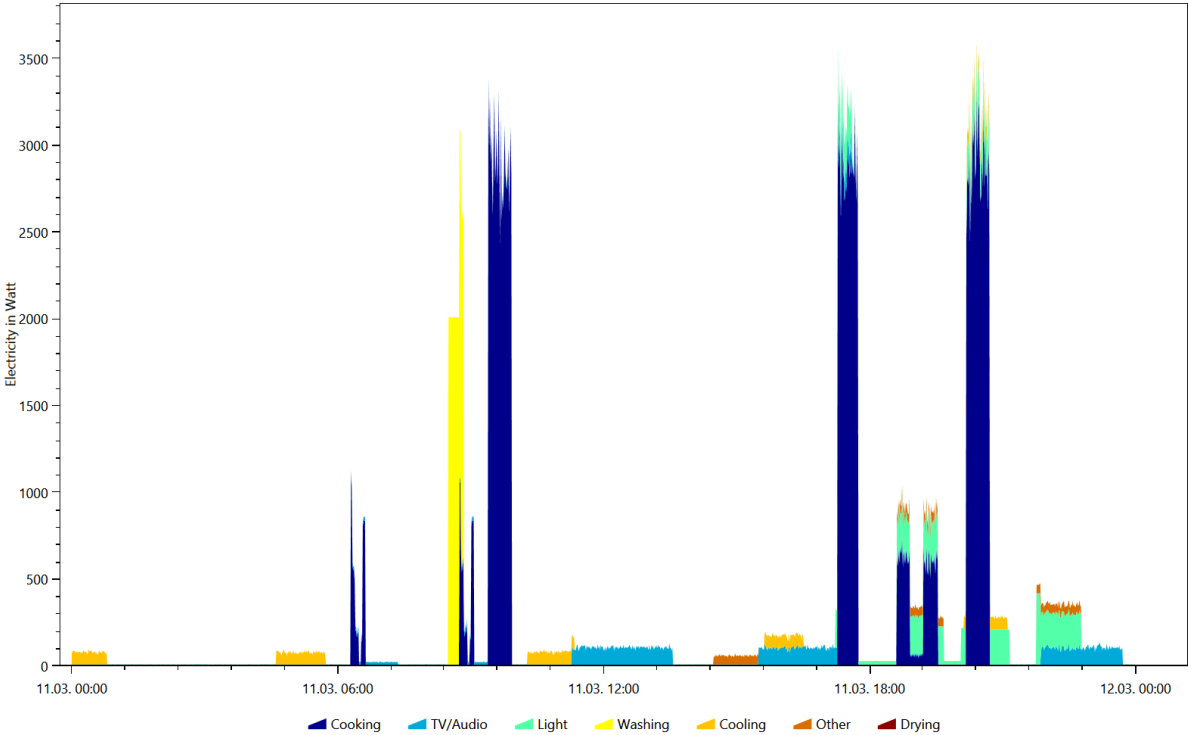
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.1



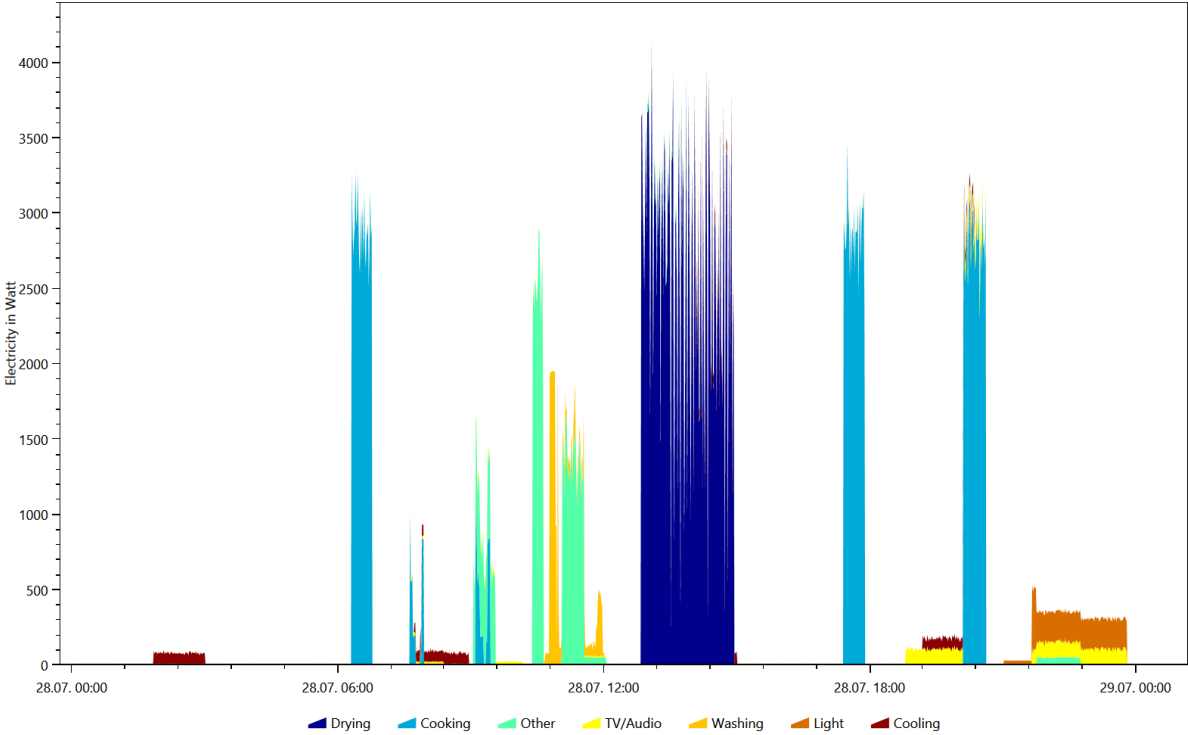
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.10.6



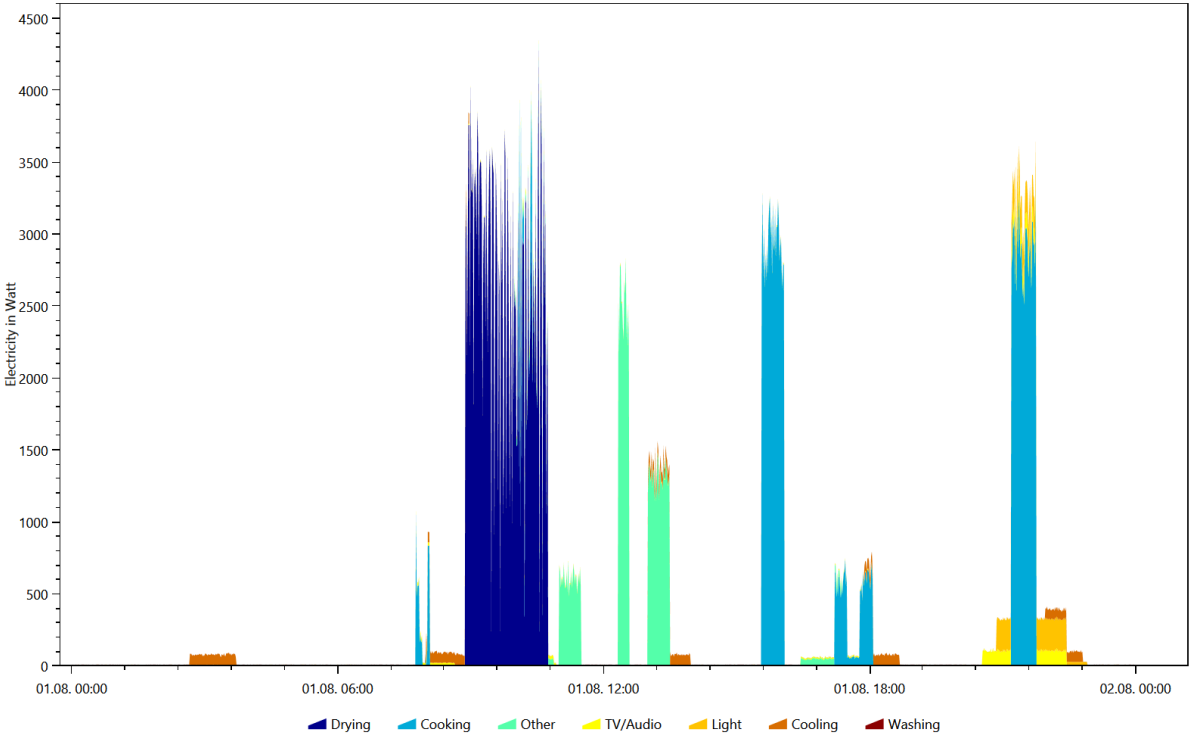
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.3.11



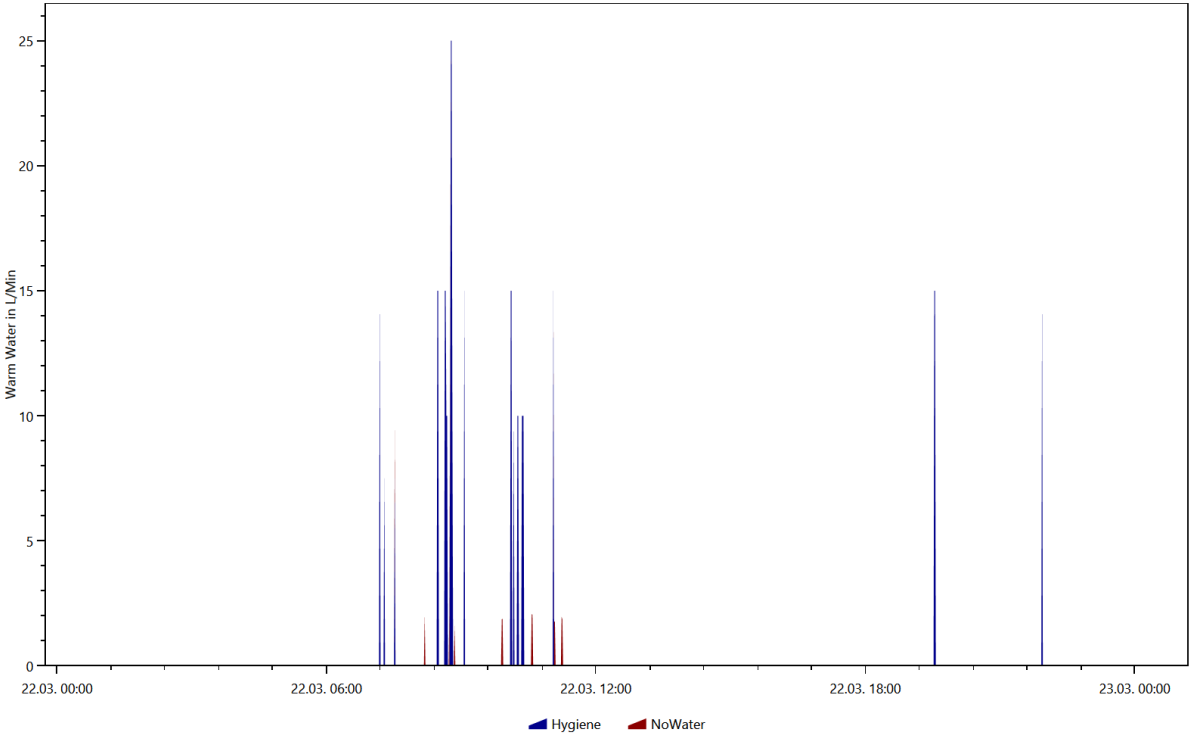
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.7.28



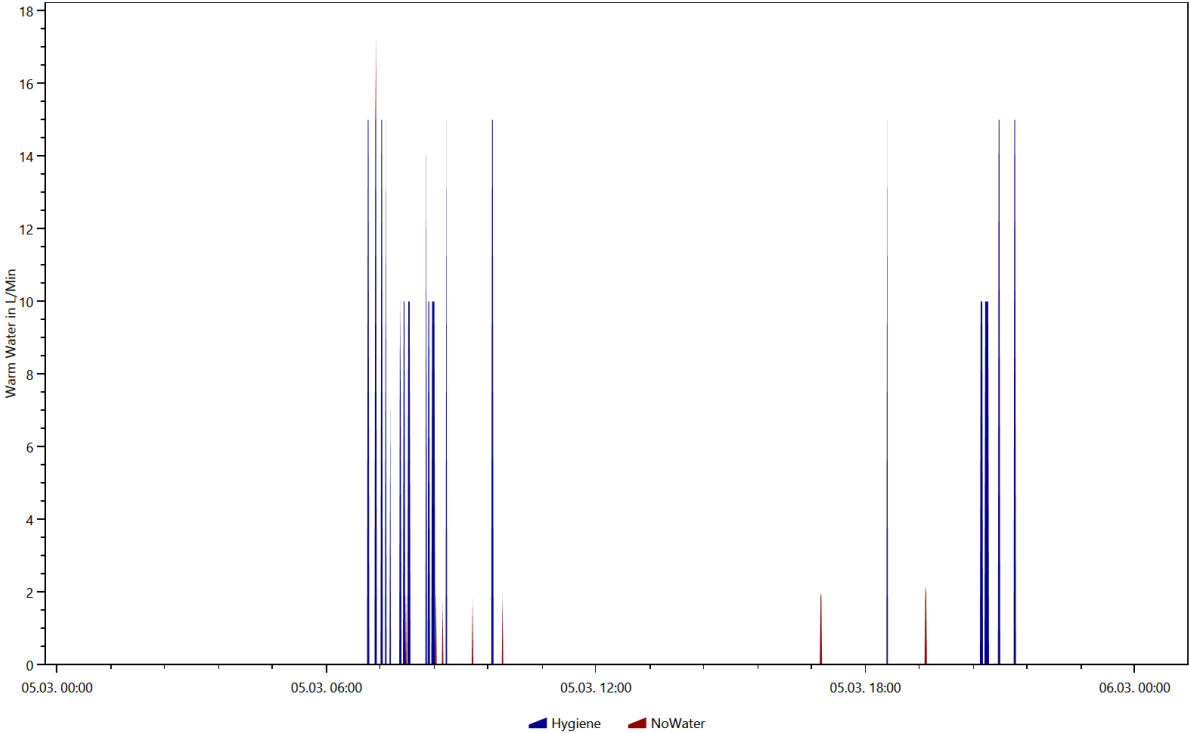
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.8.1



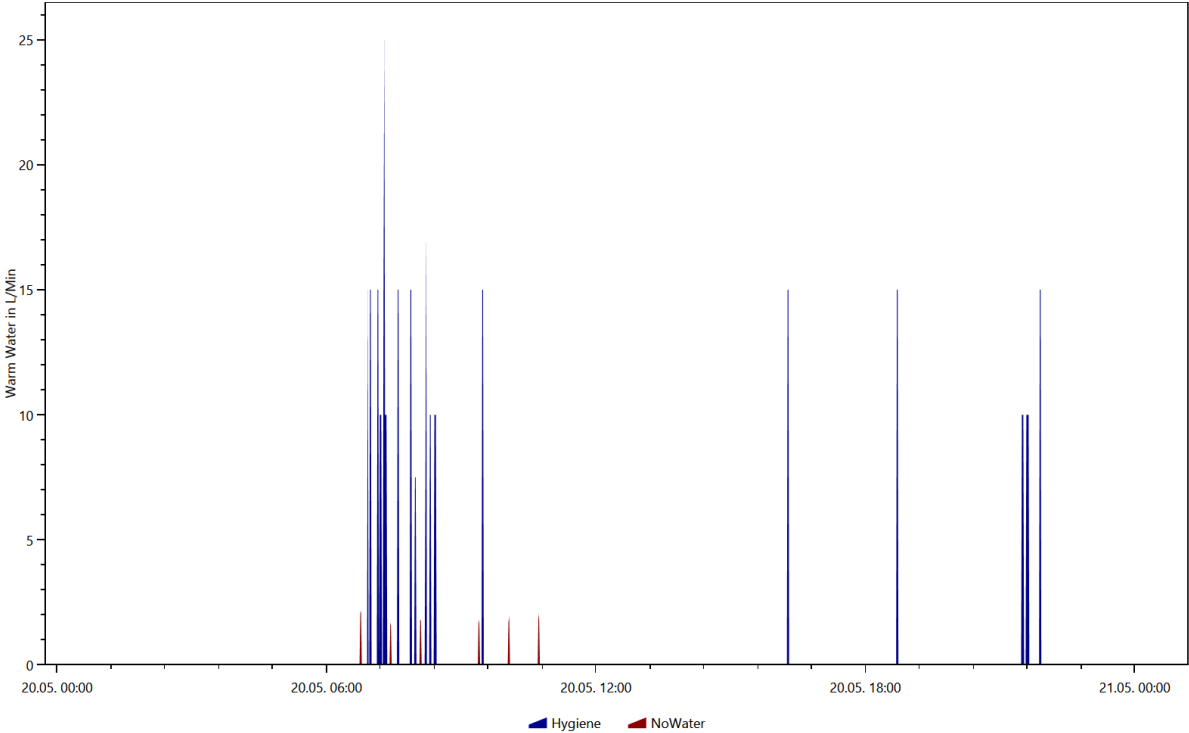
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.3.22



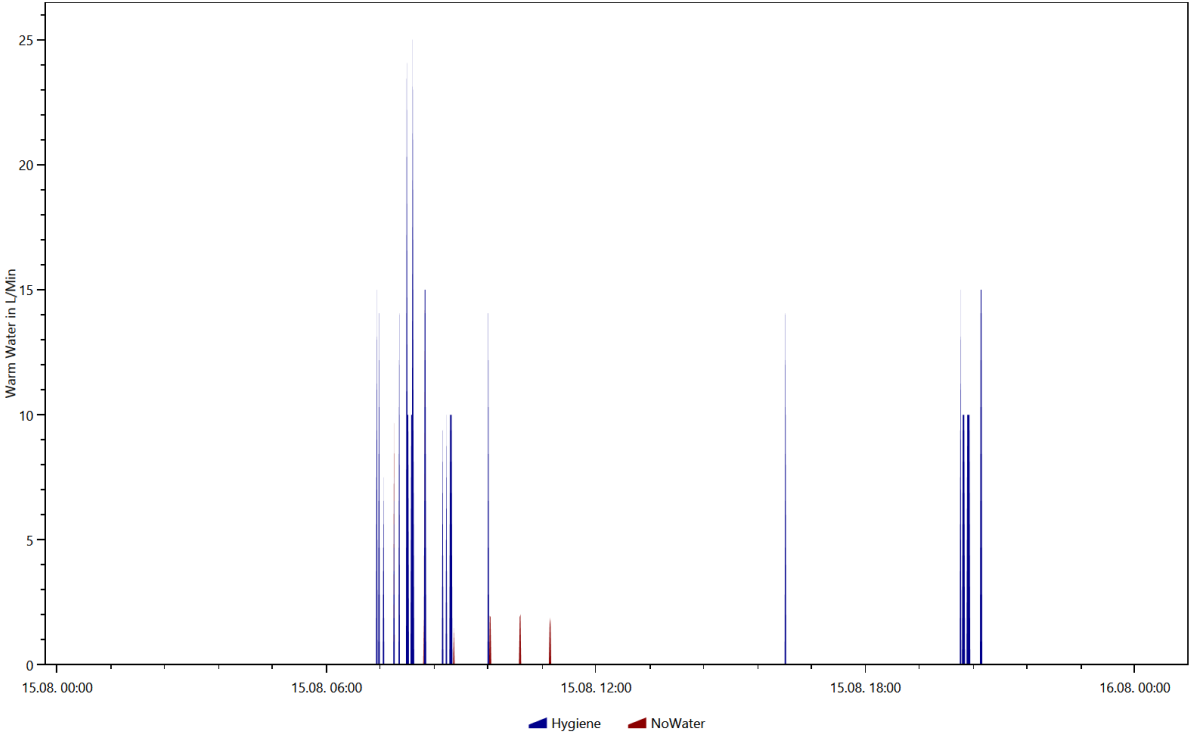
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.3.5



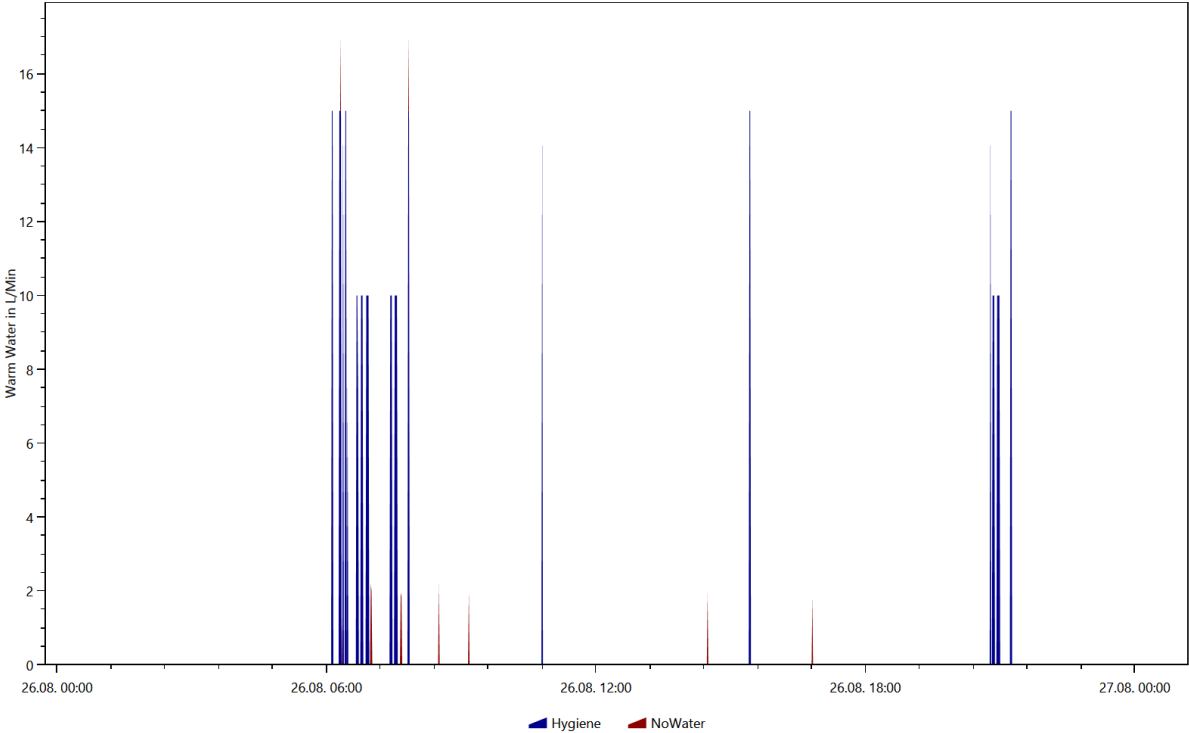
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.5.20



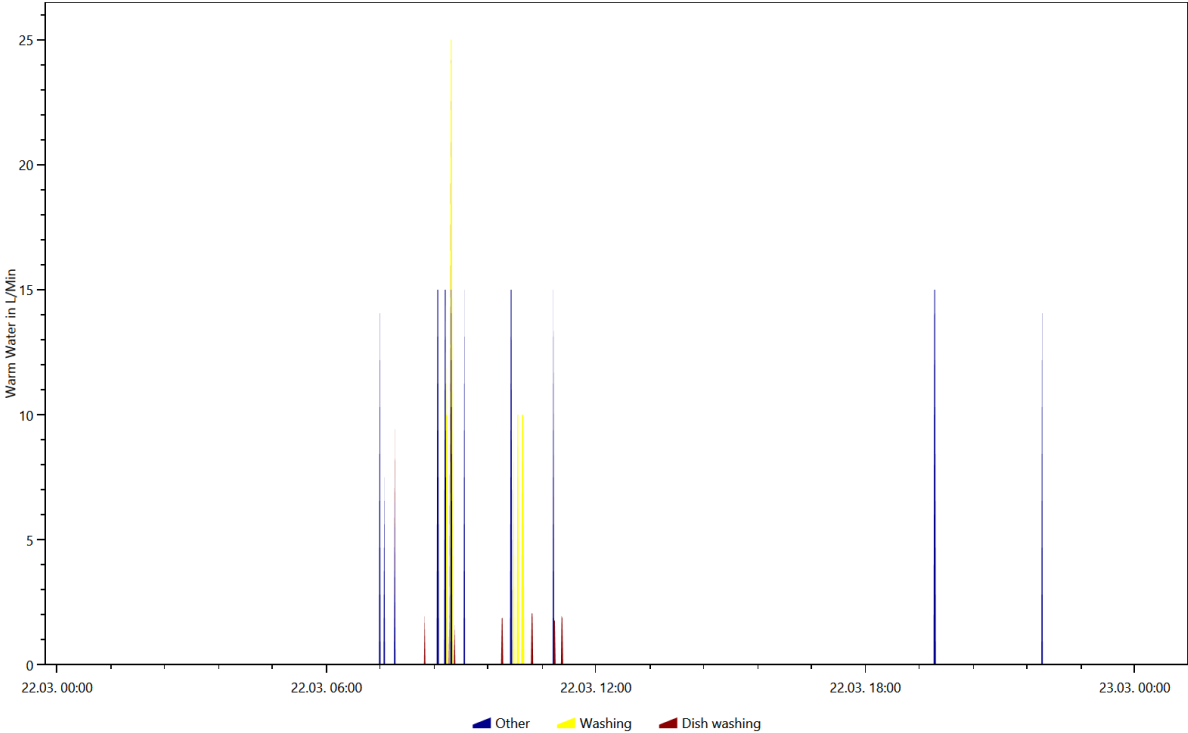
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.15



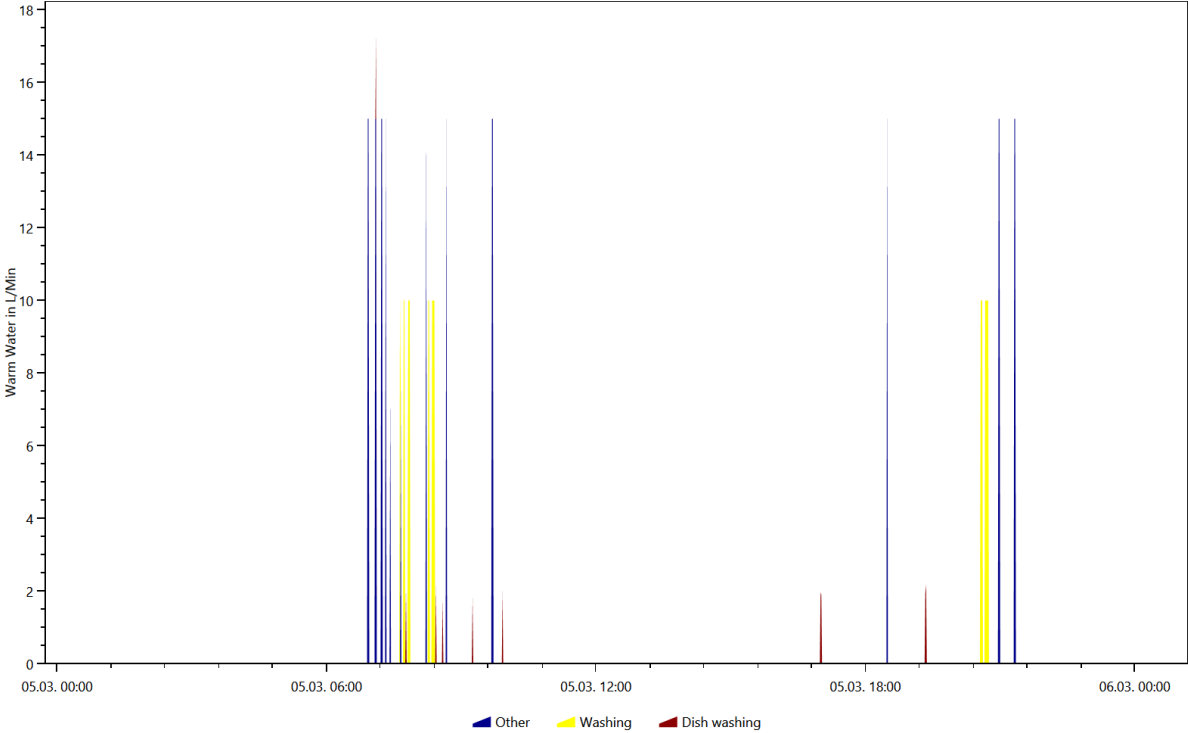
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.26



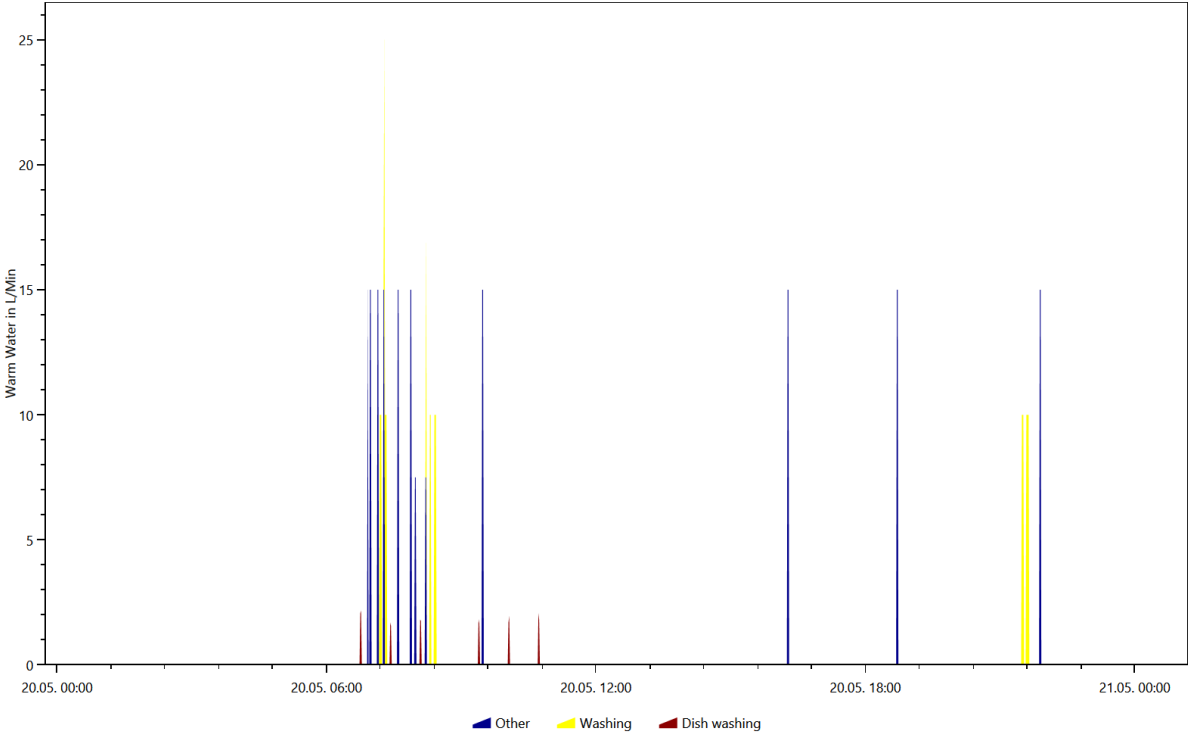
Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.3.22



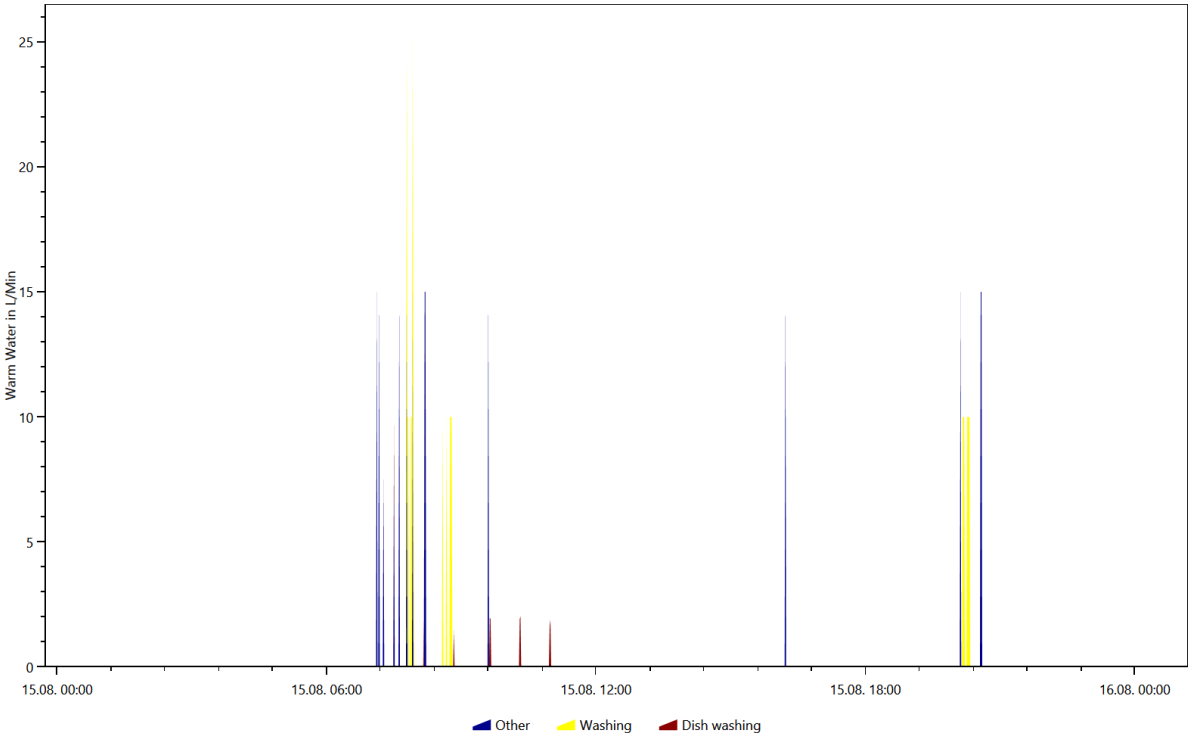
Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.3.5



Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.5.20



Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.8.15

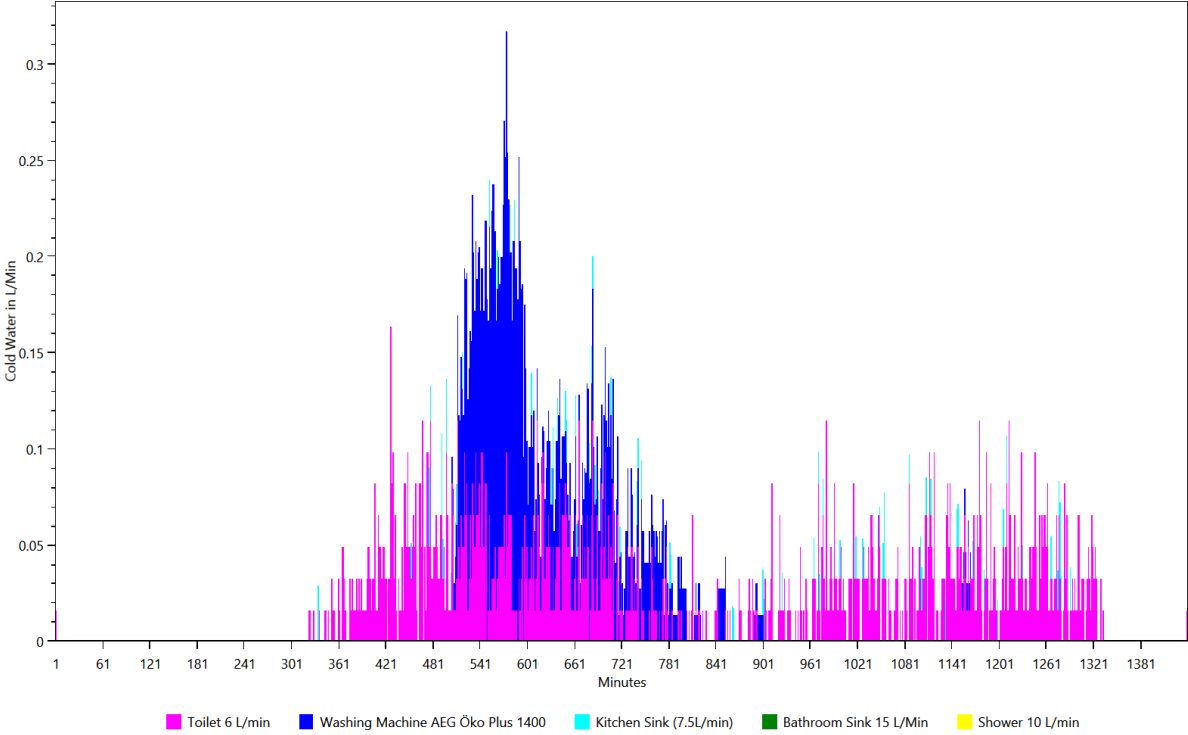


Overview of the time and power of the use per load type per device

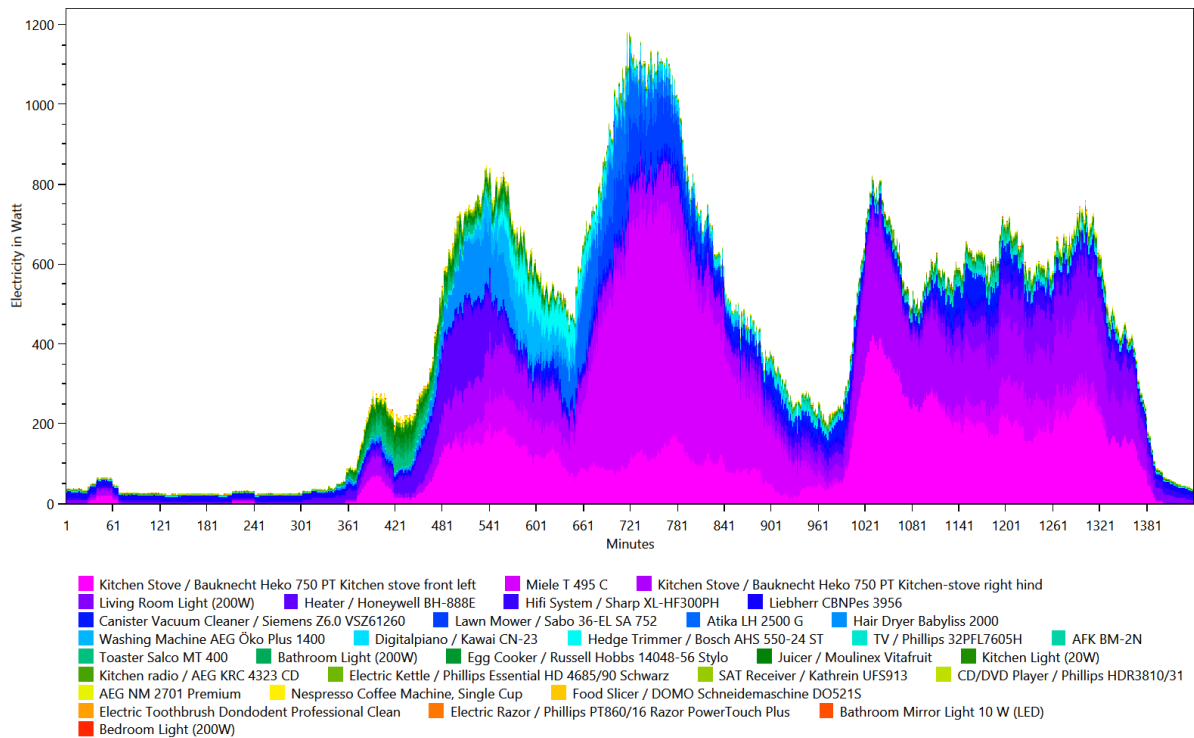
This is made from the files starting with: TimeOfUseEnergyProfiles

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

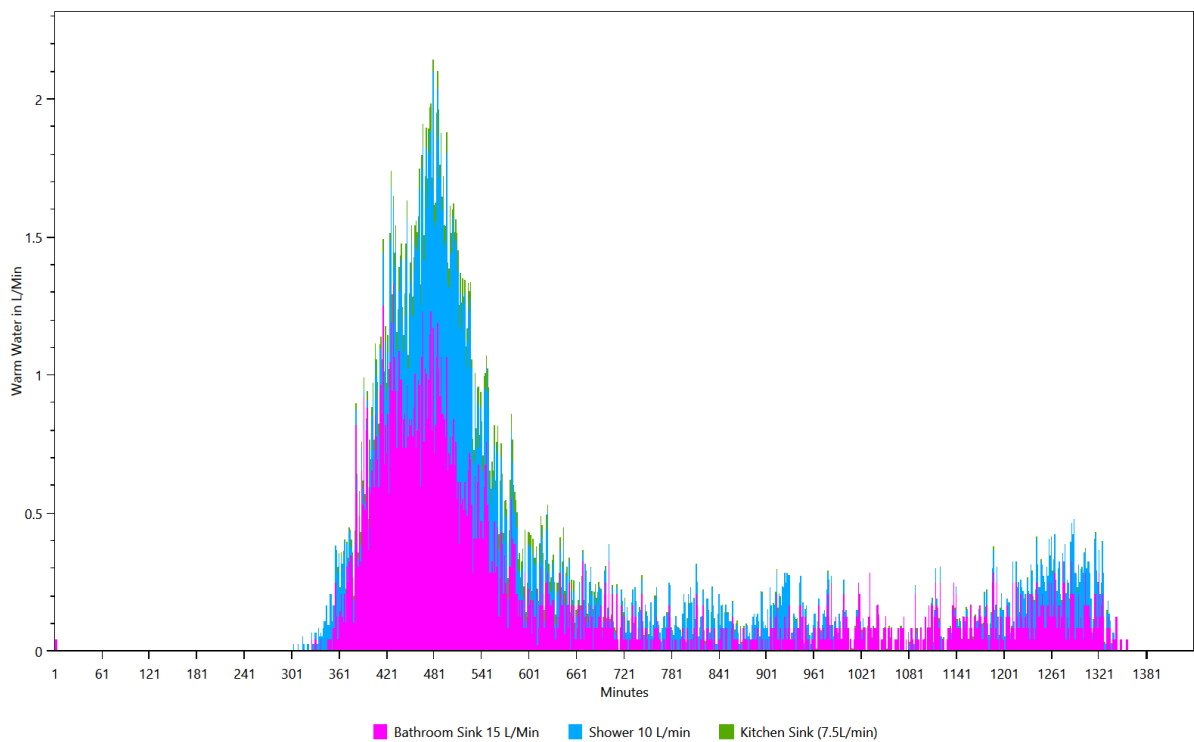
Cold Water



Electricity



Warm Water

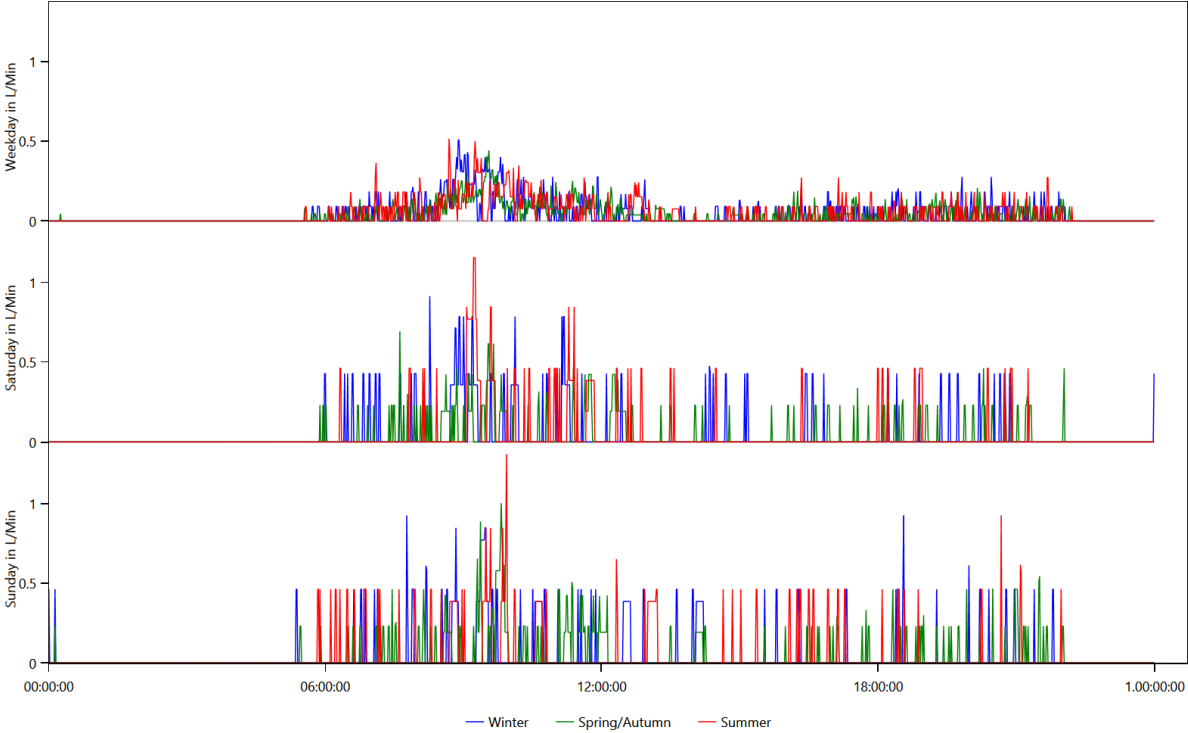


Energy use per load type during different seasons, split by weekday/saturday/sunday

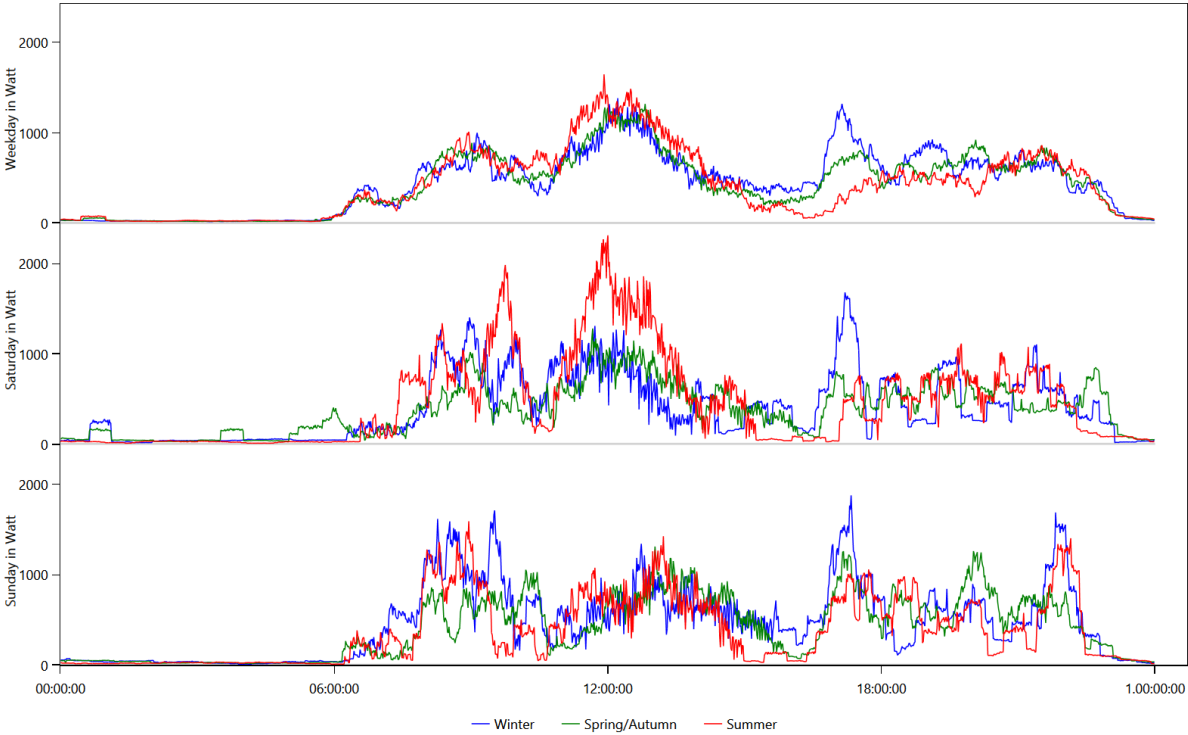
This is made from the files starting with: WeekdayProfiles

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

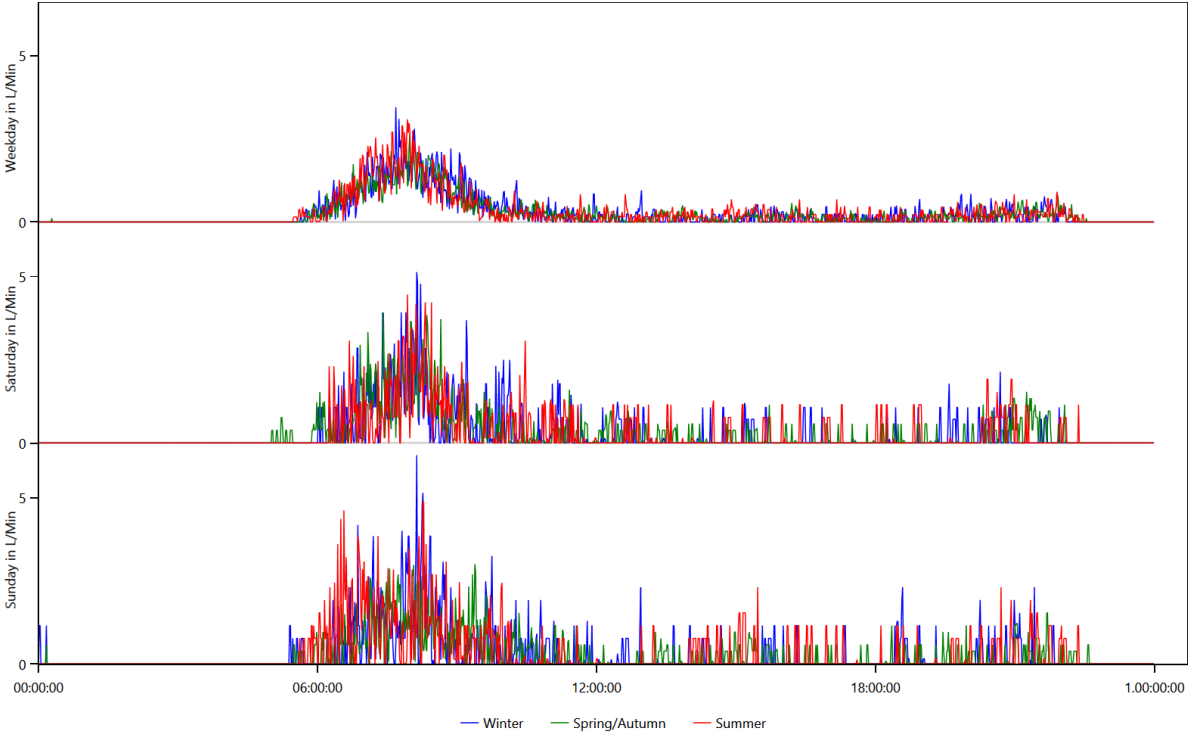
Cold Water



Electricity



Warm Water

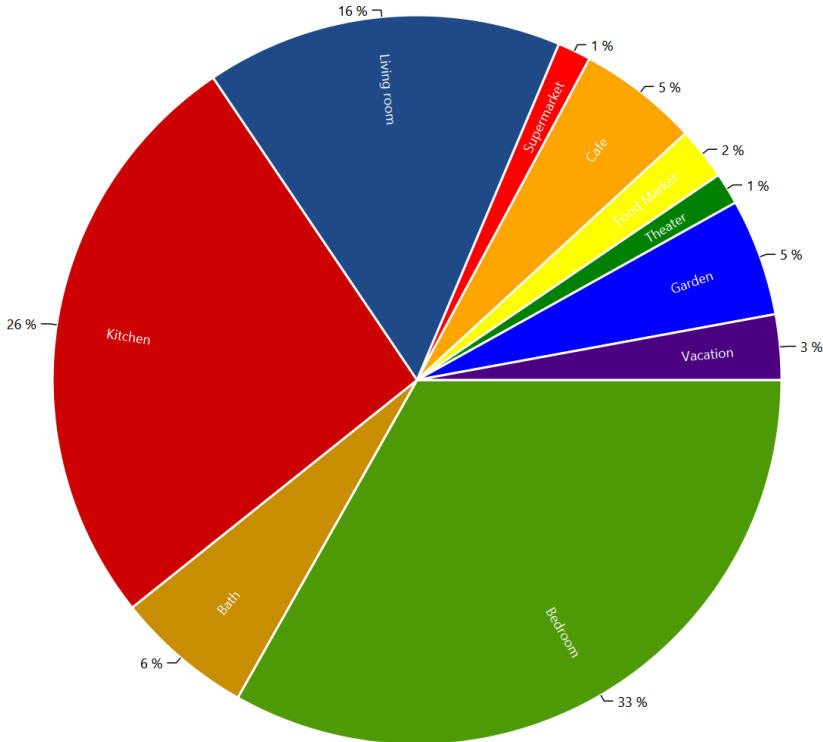


Location Distribution per Person

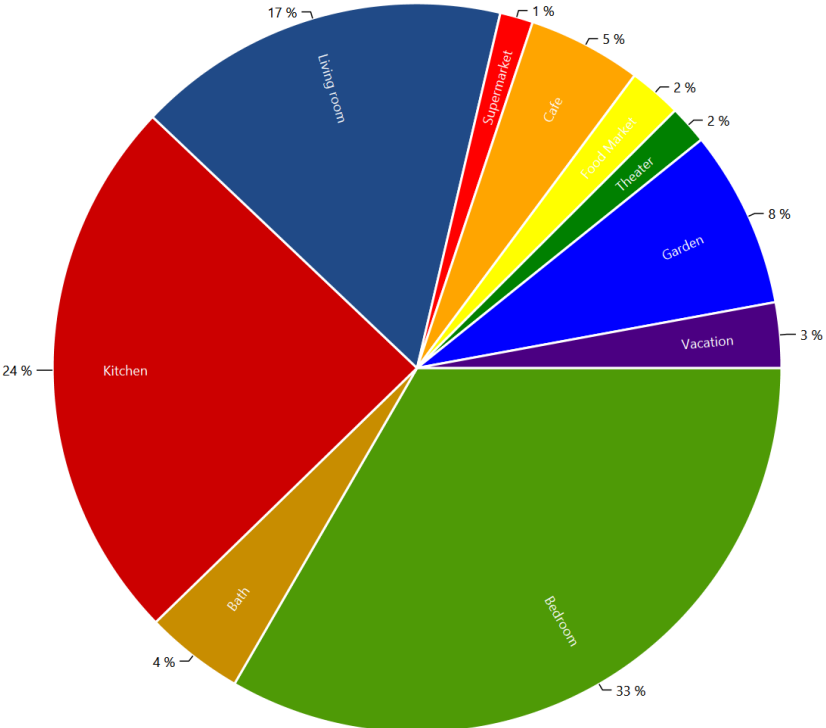
This is made from the files starting with: LocationStatistics

These charts show where the persons spend their time.

CHR16 Cordelia (75 Female)



CHR16 Edgar (80 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

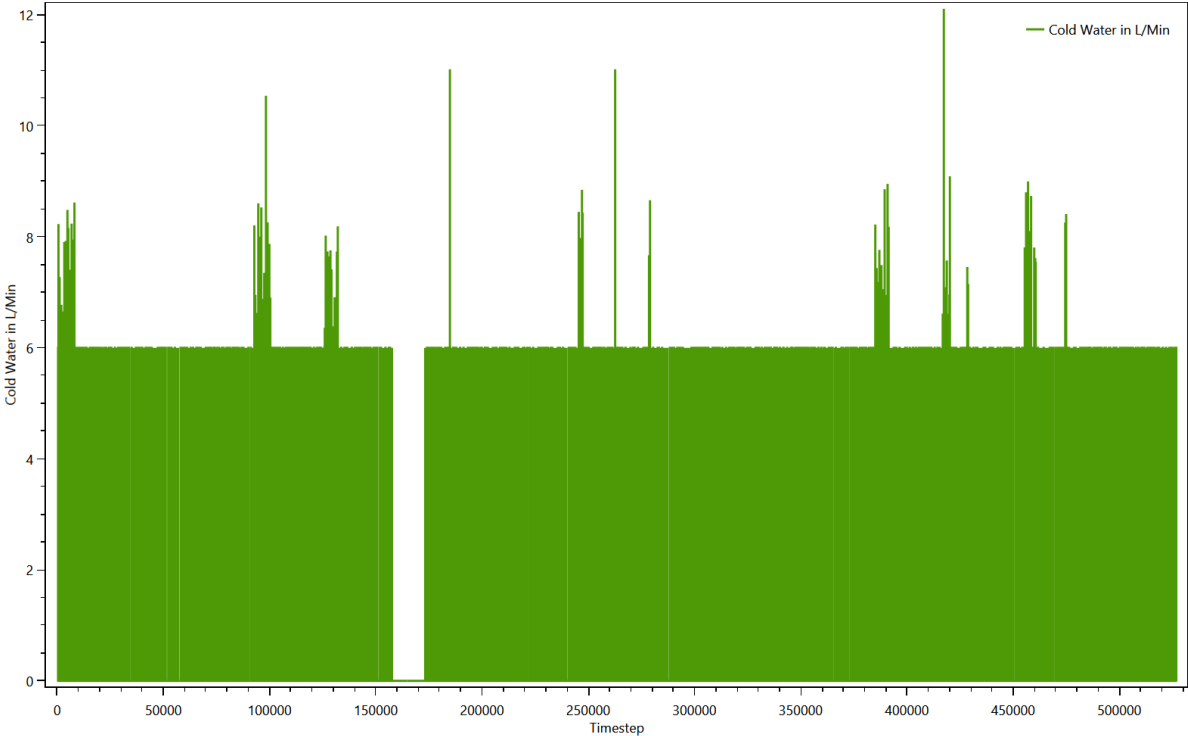
```
Time step;Calendertime;Person;Selected affordance;Affordance Category;Is Sick
0;01.01.2016 00:00;CHR16 Cordelia (75/Female);sleep bed 02 (08 h);sleep;False;
0;01.01.2016 00:00;CHR16 Edgar (80/Male);sleep bed 08 (08 h);sleep;False;
405;01.01.2016 06:45;CHR16 Edgar (80/Male);go to the toilet;hygiene;True;
411;01.01.2016 06:51;CHR16 Edgar (80/Male);eat breakfast (1 h);cooking;True;
421;01.01.2016 07:01;CHR16 Cordelia (75/Female);get ready in the morning (women);hygiene;False;
441;01.01.2016 07:21;CHR16 Cordelia (75/Female);cook together at all times;cooking;False;
475;01.01.2016 07:55;CHR16 Edgar (80/Male);get ready in the morning (men);hygiene;True;
486;01.01.2016 08:06;CHR16 Edgar (80/Male);take a shower (men);hygiene;True;
504;01.01.2016 08:24;CHR16 Edgar (80/Male);watch the news;Passive Entertainment (TV etc.);True;
521;01.01.2016 08:41;CHR16 Edgar (80/Male);watch a movie for 1 h 30 min;Passive Entertainment (TV
etc.);True;
557;01.01.2016 09:17;CHR16 Cordelia (75/Female);eat breakfast (1 h);cooking;False;
591;01.01.2016 09:51;CHR16 Edgar (80/Male);make and drink tea (15 min);cooking;True;
605;01.01.2016 10:05;CHR16 Edgar (80/Male);watch a movie for 2 h;Passive Entertainment (TV etc.);True;
622;01.01.2016 10:22;CHR16 Cordelia (75/Female);do laundry at 30°C (by variable);cleaning;False;
637;01.01.2016 10:37;CHR16 Cordelia (75/Female);go to the toilet;hygiene;False;
643;01.01.2016 10:43;CHR16 Cordelia (75/Female);take a shower with hair washing (women) (5 min hair
drying);hygiene;False;
685;01.01.2016 11:25;CHR16 Cordelia (75/Female);go shopping for food in the supermarket (1.5
h);shopping;False;
719;01.01.2016 11:59;CHR16 Edgar (80/Male);take a nap;sleep;True;
770;01.01.2016 12:50;CHR16 Cordelia (75/Female);run the dryer with wet laundry (by variable);cleaning;False;
```

Sum Profiles

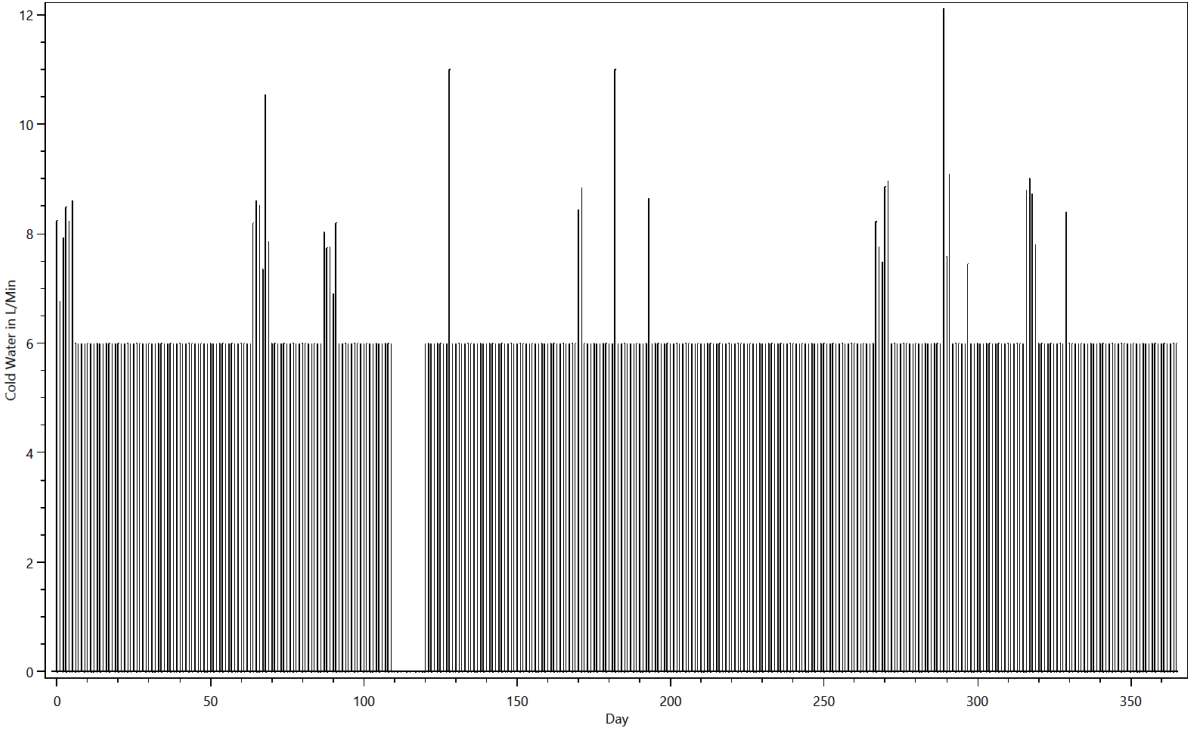
This is made from the files starting with: SumProfiles

This shows the energy use during the simulation.

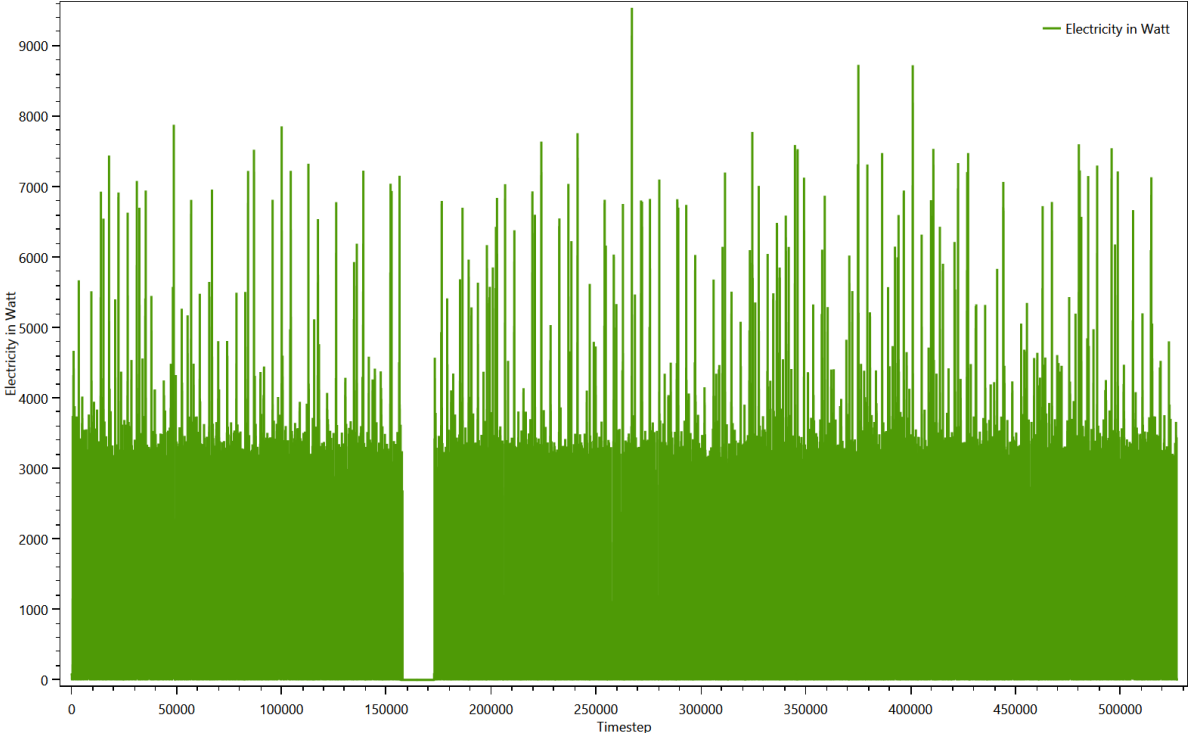
Summed up curve for Cold Water from SumProfiles.Cold Water.png



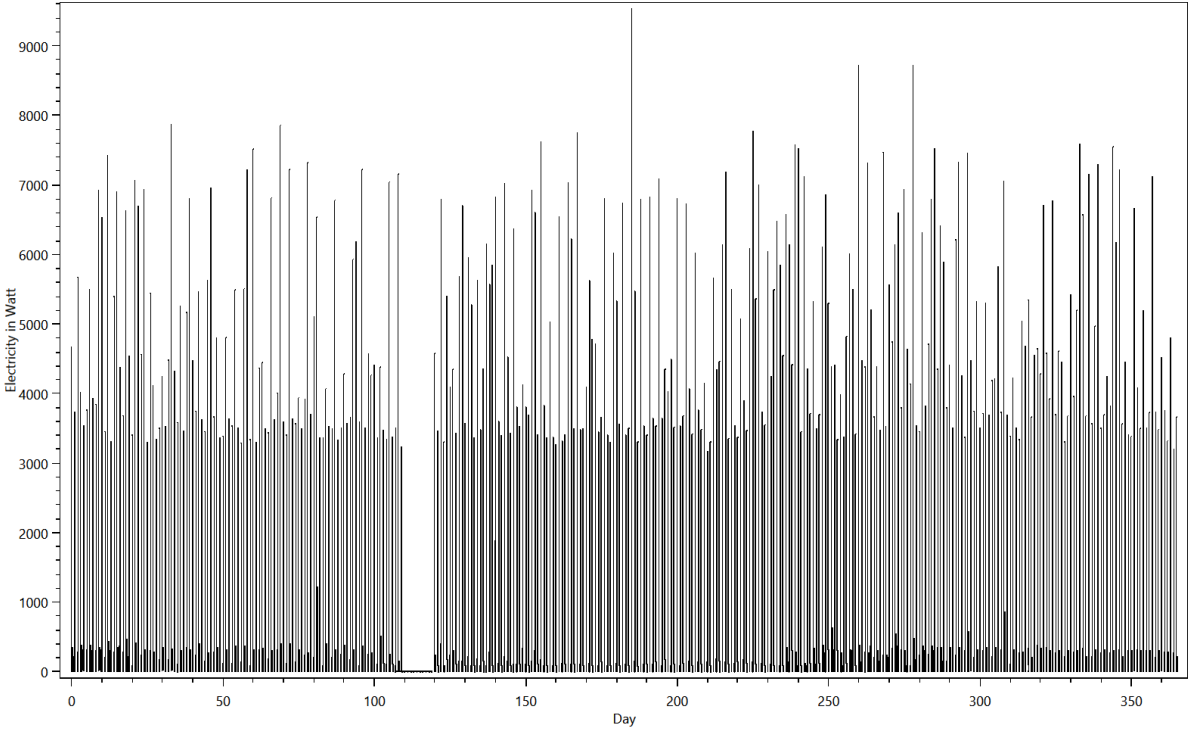
Summed up curve for Cold WaterMinMax from SumProfiles.Cold WaterMinMax.png



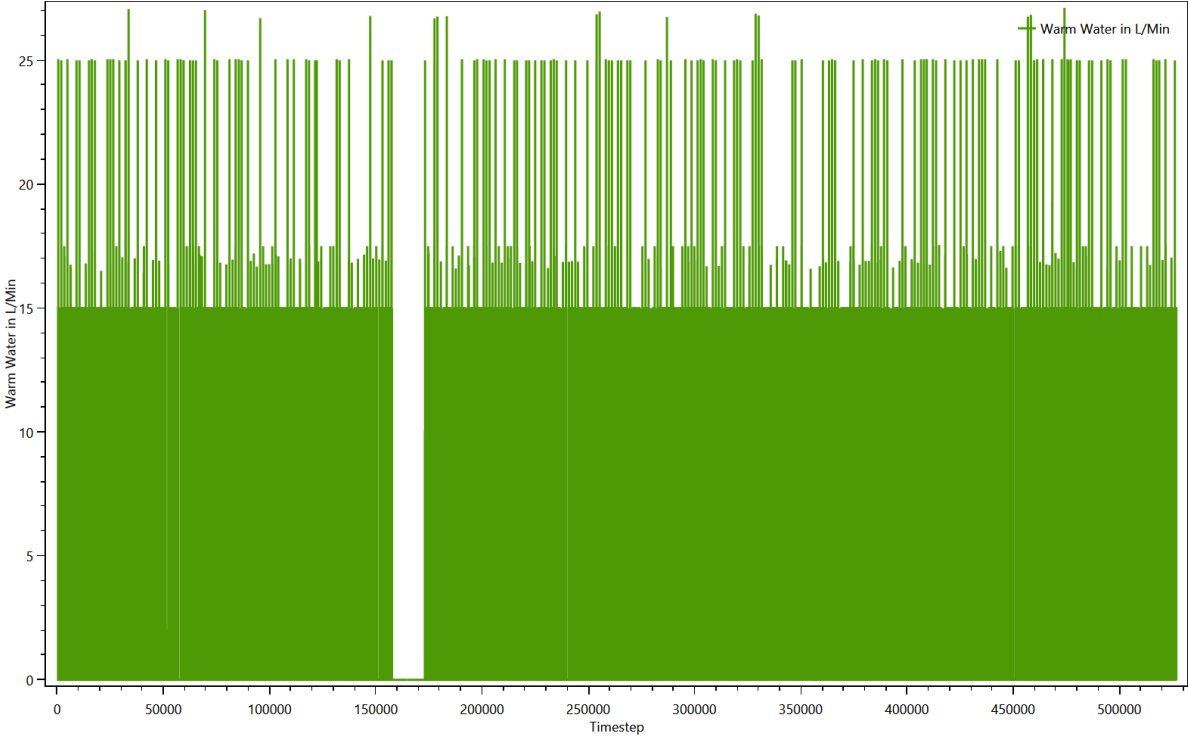
Summed up curve for Electricity from SumProfiles.Electricity.png



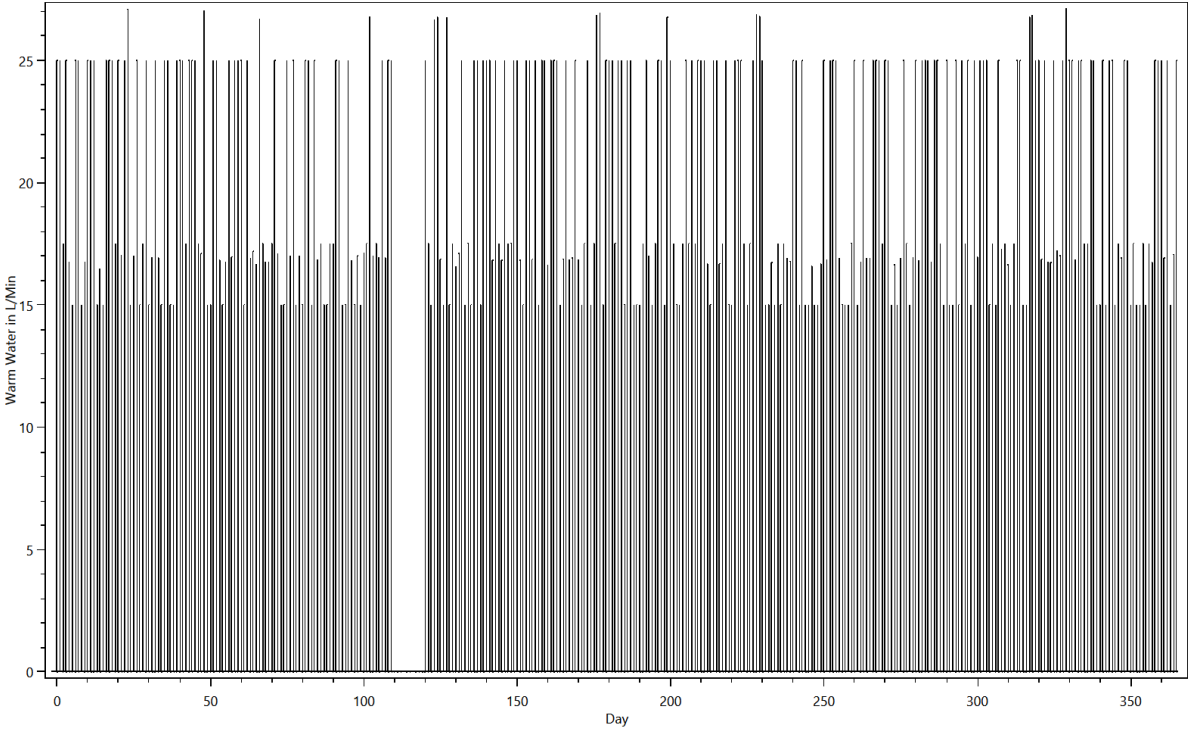
Summed up curve for ElectricityMinMax from SumProfiles.ElectricityMinMax..png



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.CHR16 Couple over 65 years 0.txt

Device;Load Type;Profile;Number of Activations

AEG NM 2701 Premium;Electricity;01 h 0 min 100% [Synthetic];123

AFK BM-2N;Electricity;Backing profile IV Bread 45 min [Synthetic];111

Atika LH 2500 G;Electricity;0 h 15 min 100% [Synthetic];145

Bathroom Light (200W);Electricity;Bath - light [Synthetic for Light Device];726

Bathroom Mirror Light 10 W (LED);Electricity;Bath - light [Synthetic for Light Device];726

Bathroom Sink 15 L/Min;Warm Water;0 h 01 min 100% [Synthetic];3183

Bathroom Sink 15 L/Min;Warm Water;0 h 01 min 50% [Synthetic];714

Bed 2;None;08 h 0 min 100% [Synthetic];357

Bed 8;None;08 h 0 min 100% [Synthetic];357

Board Games;None;01 h 0 min 100% [Synthetic];254

CD/DVD Player / Phillips HDR3810/31;Electricity;01 h 30 min 100% [Synthetic];44

CD/DVD Player / Phillips HDR3810/31;Electricity;02 h 0 min 100% [Synthetic];46

CD/DVD Player / Phillips HDR3810/31;Electricity;Standby TV / Receiver 1 h 0 min 3% [Synthetic];8529

Cafe Table;None;03 h 0 min 100 % [Synthetic];305

Canister Vacuum Cleaner / Siemens Z6.0 VSZ61260;Electricity;0 h 30 min 100% [Synthetic];171

Cleanser;None;01 h 0 min 100% [Synthetic];107

Couch;None;01 h 0 min 100% [Synthetic];721

Couch;None;02 h 0 min 100% [Synthetic];10

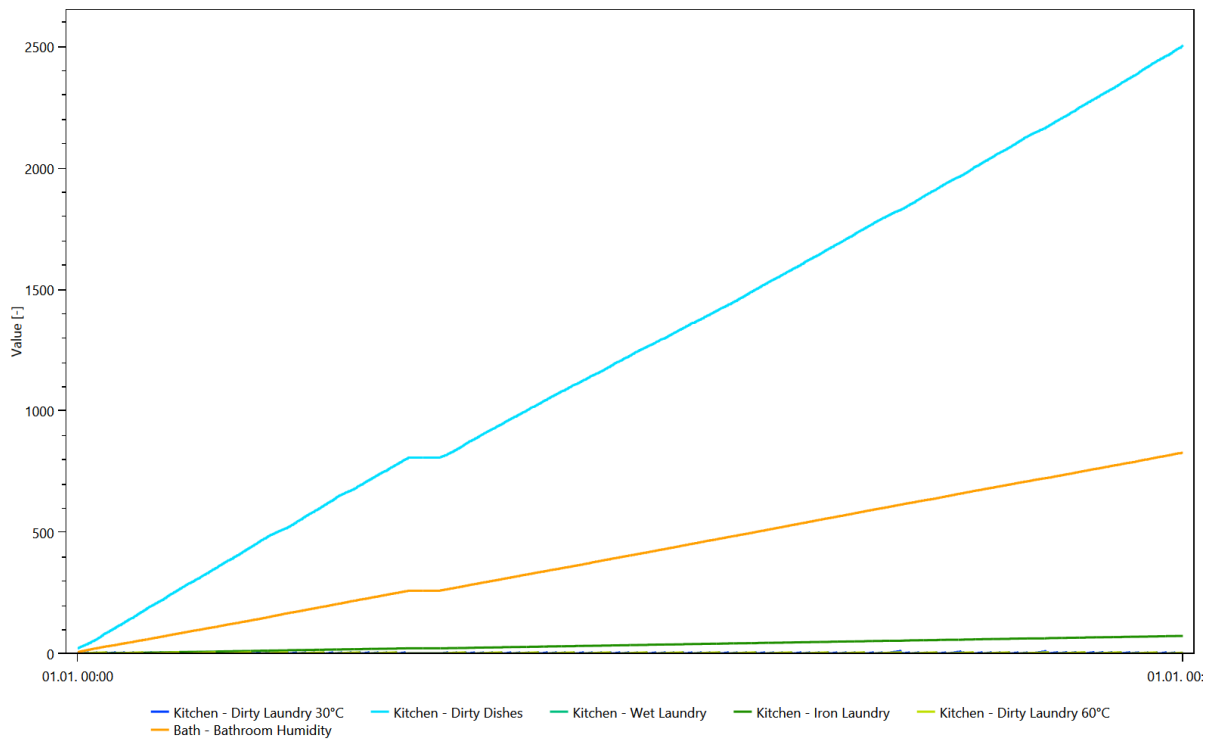
Digitalpiano / Kawai CN-23;Electricity;01 h 0 min 100% [Synthetic];940

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

