

Overview of the results of the household CHS12 Shiftworker Couple 0

Calculation Time

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

Energy Intensity: EnergySaving

Seed 5688

LoadProfileGenerator 5.8.0.16019

by Noah Pflugradt

<http://www.loadprofilegenerator.de>

Rendering date:16.12.2016 09:38:32

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Totals

Totals for each Loadtype

Load Type	Value	Unit
Cold Water	35189.92	L
Electricity	1866.67	kWh
Warm Water	80987.50	L

Totals for each Loadtype per Day

Load Type	Value	Unit
Cold Water	96.15	L
Electricity	5.10	kWh
Warm Water	221.28	L

Minimum and Maximum for each Loadtype

Household	Minimum	Maximum	Unit
Cold Water	0.00	17.98	L/Min
Electricity	0.00	7406.66	Watt
Warm Water	0.00	17.50	L/Min

Totals for each Loadtype per Person

Load Type	Value	Unit
Cold Water	17594.96	L
Electricity	933.34	kWh

Warm Water	40493.75	L
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Totals for each Loadtype per Person per Day

Load Type	Value	Unit
Cold Water	48.07	L
Electricity	2.55	kWh
Warm Water	110.64	L

Persons

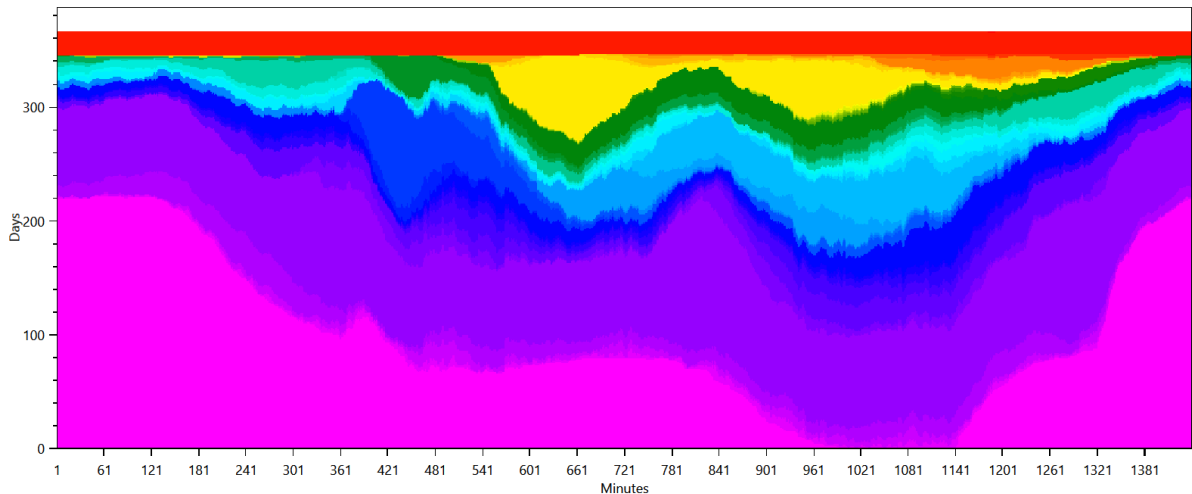
- HH0
 - CHS12 Falk (31/Male)(31/Male)
 - CHS12 Regina (29/Female)(29/Female)

Activity Frequency Charts

This is made from the files starting with: ActivityFrequenciesPerMinute

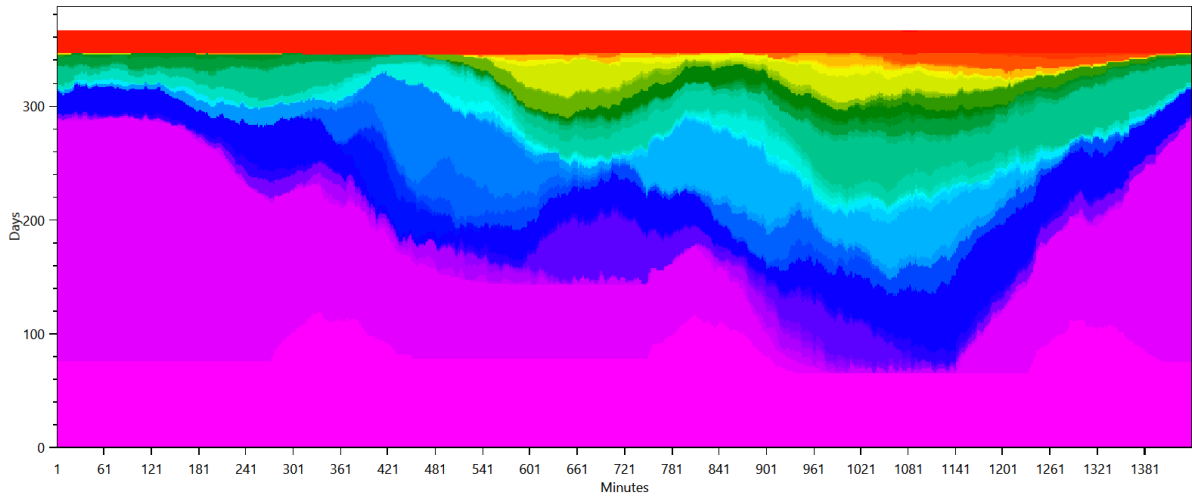
These charts show an ordered distribution of times of the activities of each person. This helps with judging quickly if a person is sleeping correctly and if they are going to work regularly.

HH0 - CHS12 Falk (31 Male)



- sleep bed 07 (08 h) (shift worker man)
- go to the toilet
- exercise for 30 min on the treadmill
- use the laptop for Internet, Movie, Music, News (2 h)
- work as shift worker (man)
- take a shower (men)
- cook together at all times
- go shopping for food in the supermarket (1.5 h)
- watch a movie for 2 h
- play board games (1 h)
- play computer games
- get ready in the morning (men)
- eat breakfast (1 h)
- clean the bath
- watch the news
- play Xbox (1 h)
- take a nap
- take a long nap (shift worker)
- read a newspaper for 30min
- watch a movie for 1 h 30 min
- watch TV (1 h)
- watch sports on TV with SAT Reciever (2 h)
- shovel snow
- cook together (all the time) (cook together at all times)
- wash the car saturday (1 h)
- watch TV with someone (watch sports on TV with SAT Reciever (2 h))
- listen to music on compact hifi (2 h)
- go shopping (4 h)
- eat a cooked meal (interrupting) (eat breakfast (1 h))
- take a saturday day trip (10 h)
- visit the cinema
- vacuum the household
- watch TV with someone (watch TV (1 h))
- join shopping (go shopping (4 h))
- watch TV with someone (watch a movie for 1 h 30 min)
- read a magazine
- read a book on the couch all the time
- take nap on the weekend (2 h)
- watch TV with someone (watch a movie for 2 h)
- go for walk (1 h)
- water the garden outside
- relax in the garden 2
- mow the lawn on saturday above 15°C
- grill food and eat it (3 h)
- relax in the garden
- watch TV with someone (iron and watch TV with Sat Reciever (1 h))
- eat a cooked meal (interrupting) (grill food and eat it (3 h))
- taking a vacation
- watch TV with someone (watch the news)

HH0 - CHS12 Regina (29 Female)



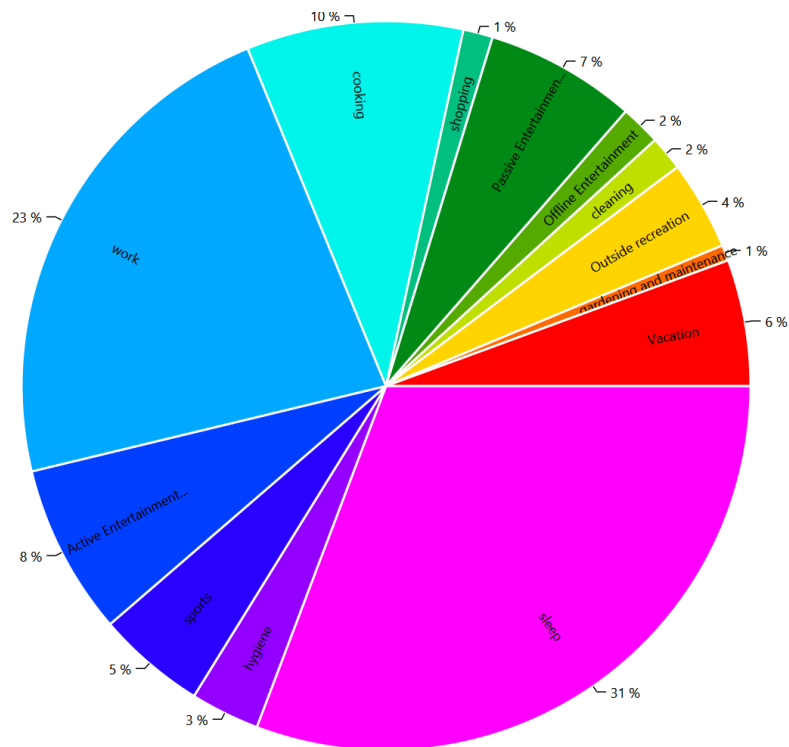
- work as shift worker (woman)
- sleep bed 06 (08 h) (shift worker woman)
- go to the toilet
- take a shower with hair washing (women) (5 min hair drying)
- do laundry at 30°C (by variable)
- cook together (all the time) (cook together at all times)
- take a nap
- run the dryer with wet laundry, only below 15°C (by variable)
- play board games (1 h)
- use the laptop for Internet, Movie, Music, News (2 h)
- get ready in the morning (women)
- eat a cooked meal (interrupting) (eat breakfast (1 h))
- read a newspaper for 30min
- take a shower without hair washing (women)
- eat breakfast (1 h)
- watch sports on TV with SAT Reciever (2 h)
- take a long nap (shift worker)
- bake a cake
- read a magazine
- run the dishwasher (triggered)
- take a shower with hair washing (women) (20 min hair drying)
- watch a movie for 1 h 30 min
- invite friends for coffee
- cook together at all times
- iron and watch TV with Sat Reciever (1 h)
- watch the news
- watch a movie for 2 h
- watch TV (1 h)
- go shopping (4 h)
- do laundry at 60°C (by variable)
- visit the cinema
- watch TV with someone (watch a movie for 2 h)
- go to doctor
- clean the windows
- iron Clothes
- watch TV with someone (watch a movie for 1 h 30 min)
- do garden work every day
- relax in the garden
- make and drink tea (15 min)
- read a book on the couch all the time
- relax in the garden 2
- take nap on the weekend (2 h)
- watch TV with someone (watch sports on TV with SAT Reciever (2 h))
- hang up laundry outside only above 15°C (by variable)
- grill food and eat it (3 h)
- eat a cooked meal (interrupting) (grill food and eat it (3 h))
- taking a vacation
- watch TV with someone (watch the news)

Activity Distribution per Person

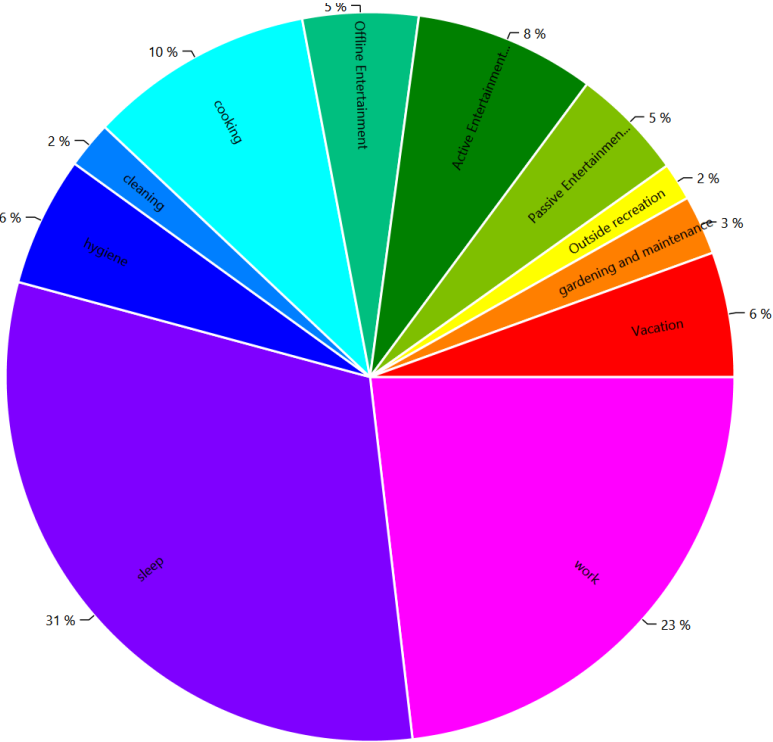
This is made from the files starting with: ActivityPercentage

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

HH0 - CHS12 Falk (31 Male)



HH0 - CHS12 Regina (29 Female)

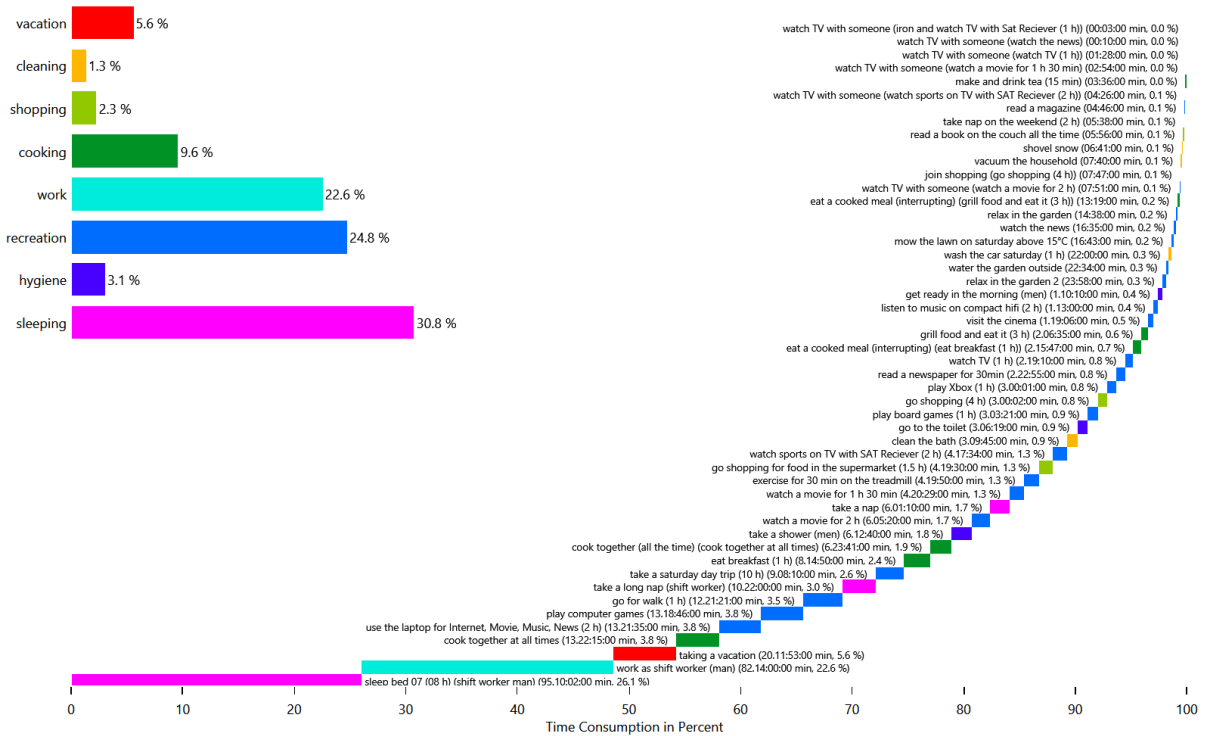


Time Use per Person per Affordance Per Person

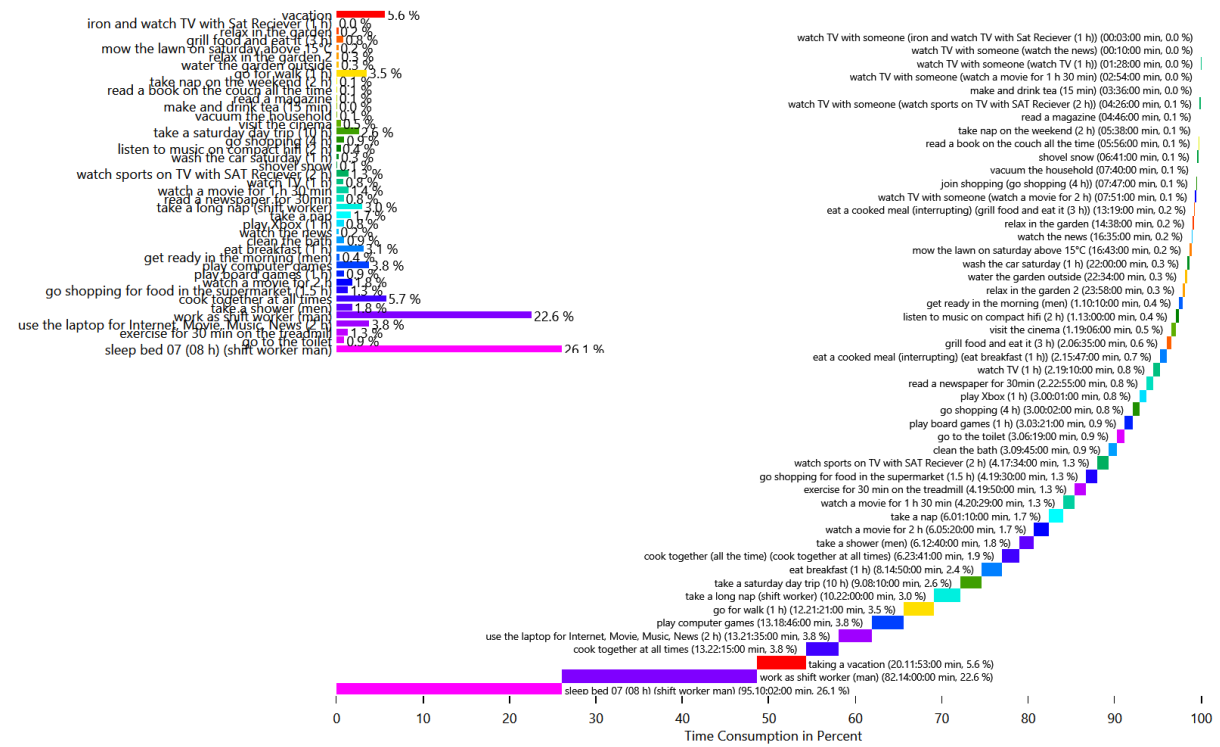
This is made from the files starting with: AffordanceTimeUse

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.

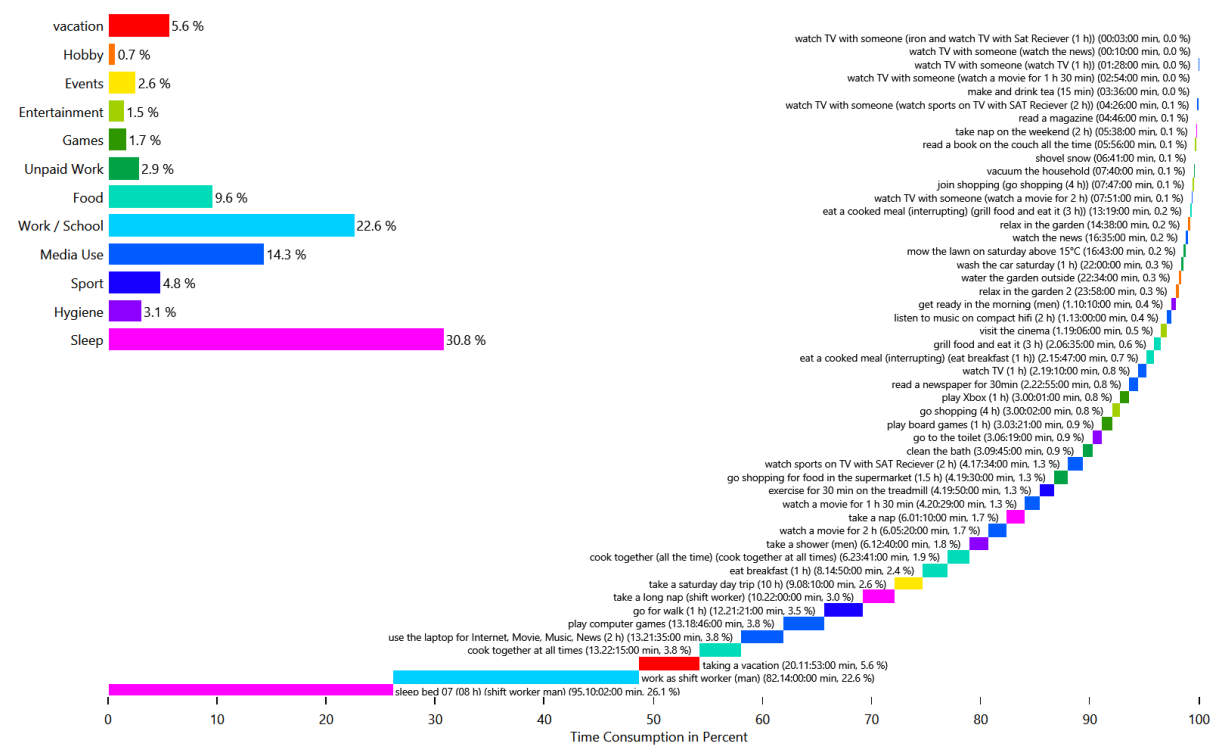
HH0 - CHS12 Falk (31 Male)



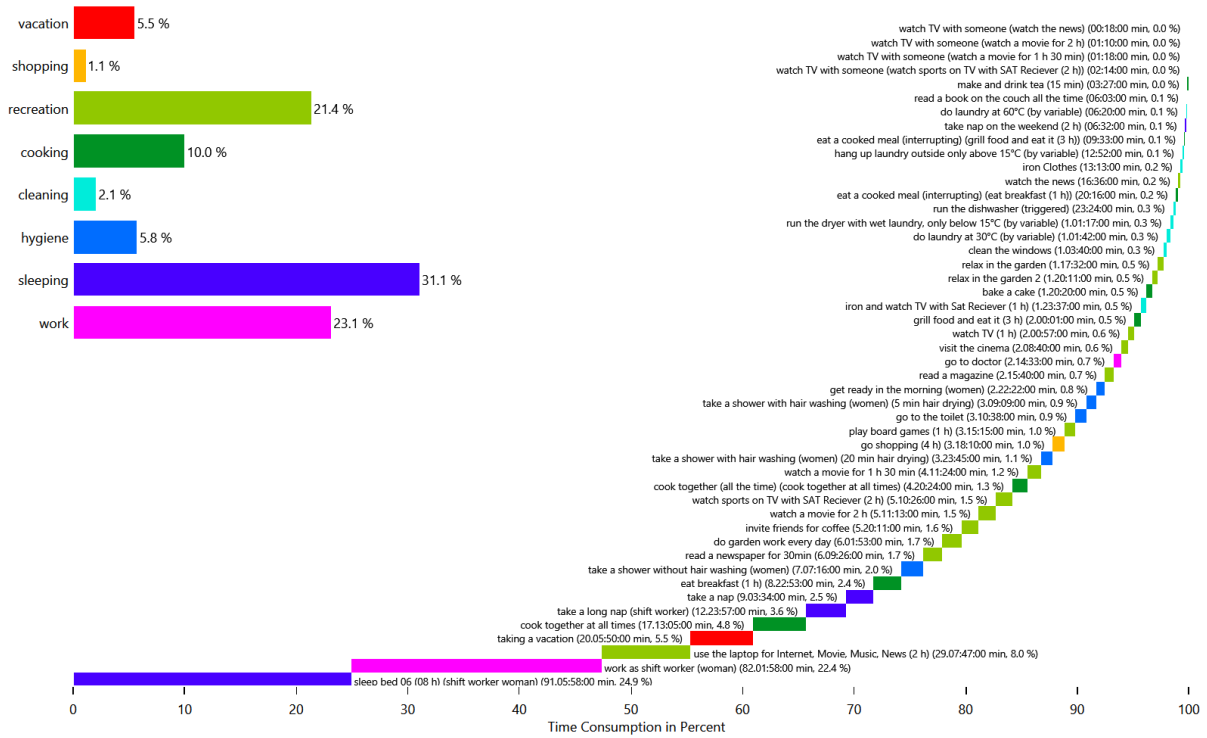
HH0 - CHS12 Falk (31 Male)



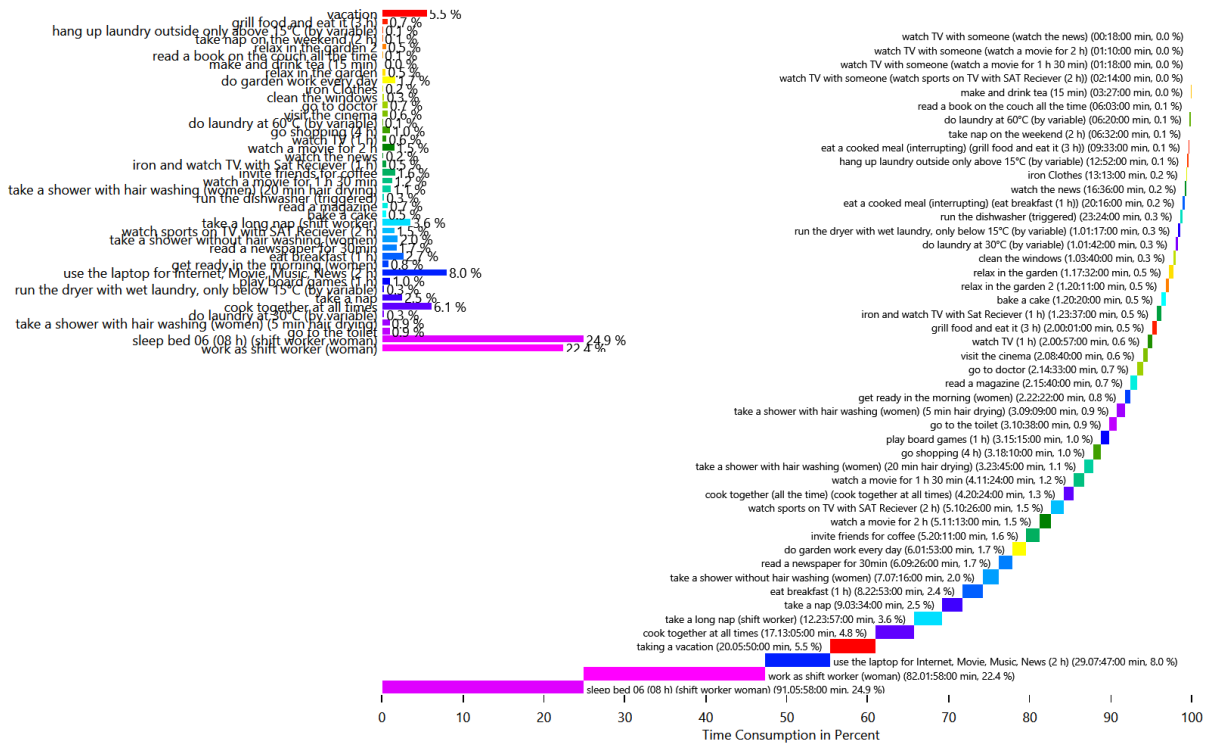
HH0 - CHS12 Falk (31 Male)



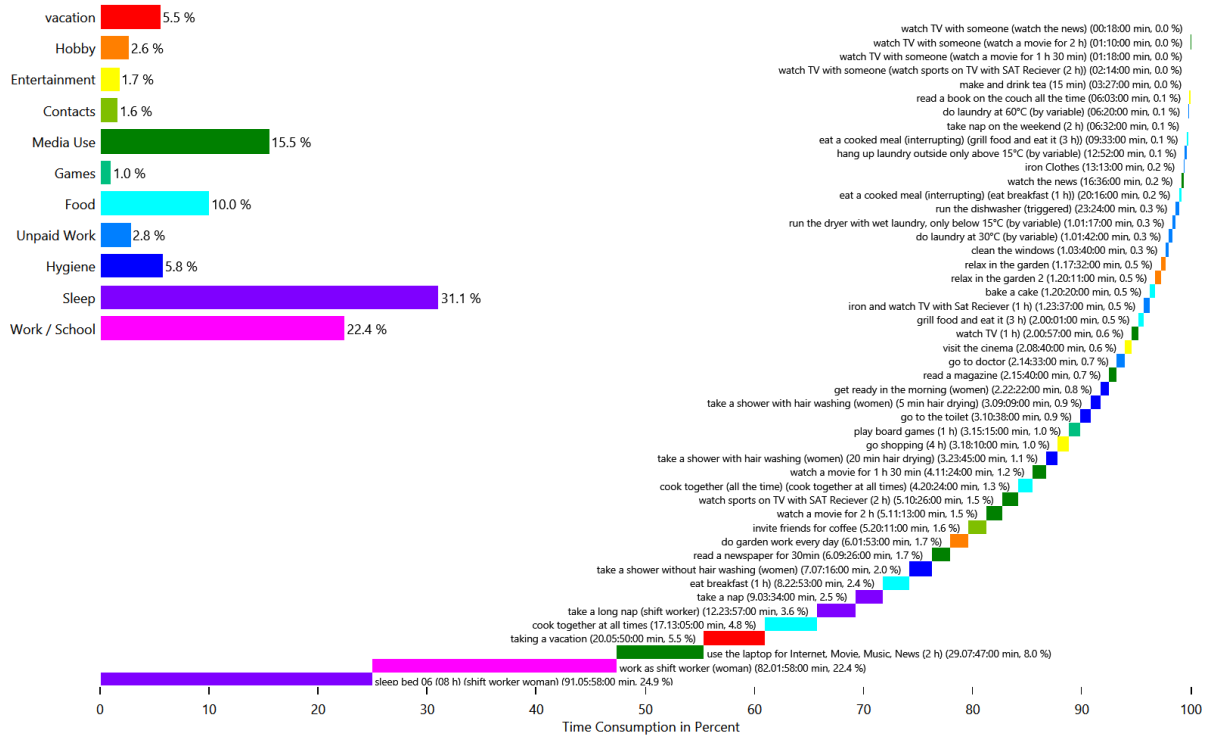
HH0 - CHS12 Regina (29 Female)



HH0 - CHS12 Regina (29 Female)



HH0 - CHS12 Regina (29 Female)

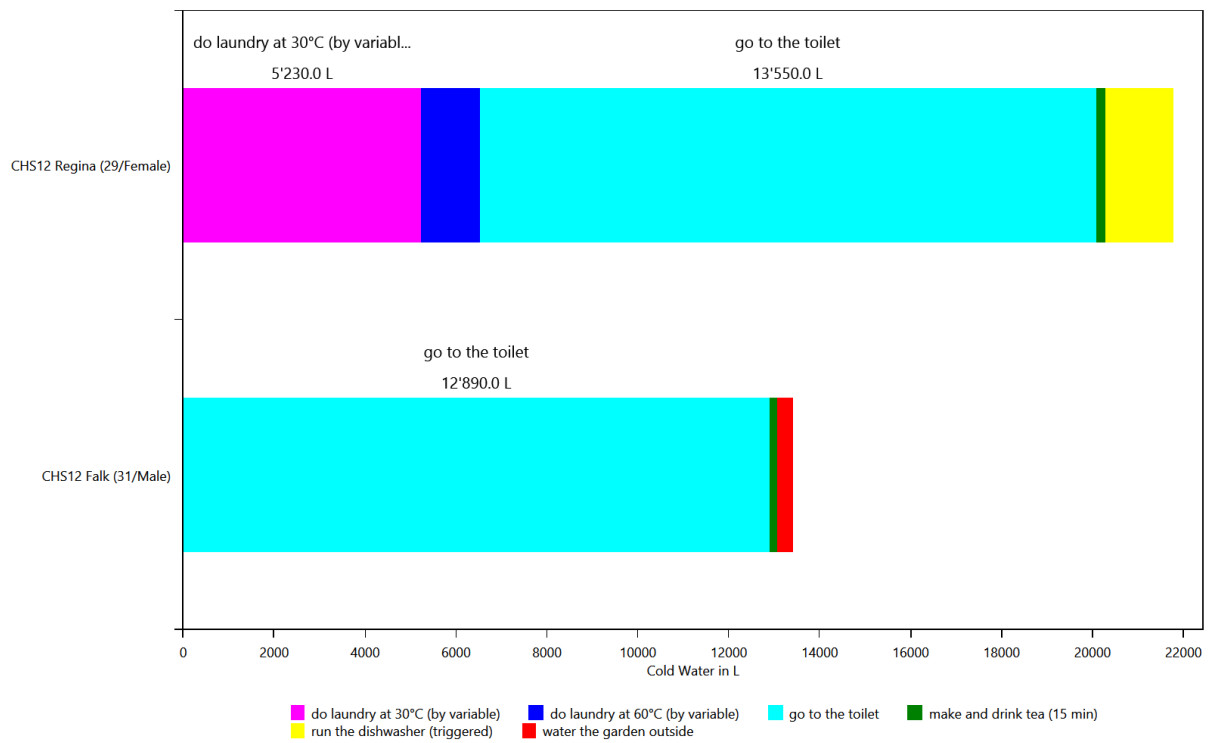


Energy use per person per affordance

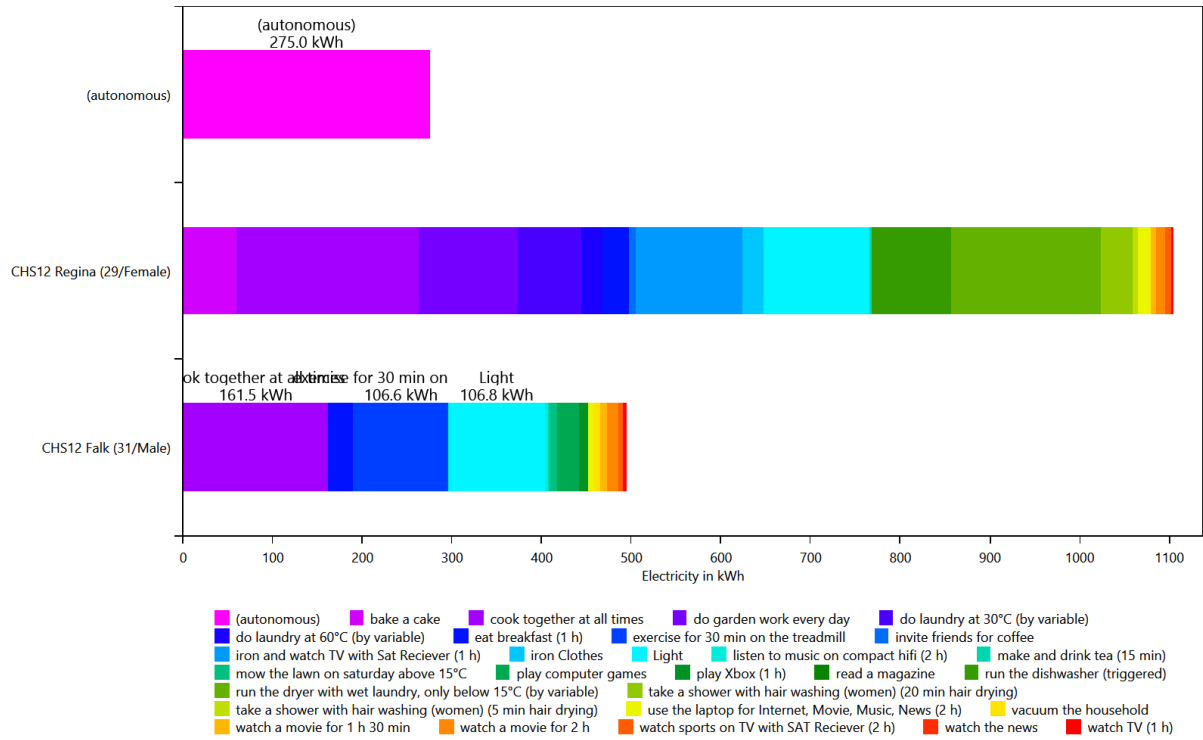
This is made from the files starting with: **AffordanceEnergyUsePerPerson**

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.

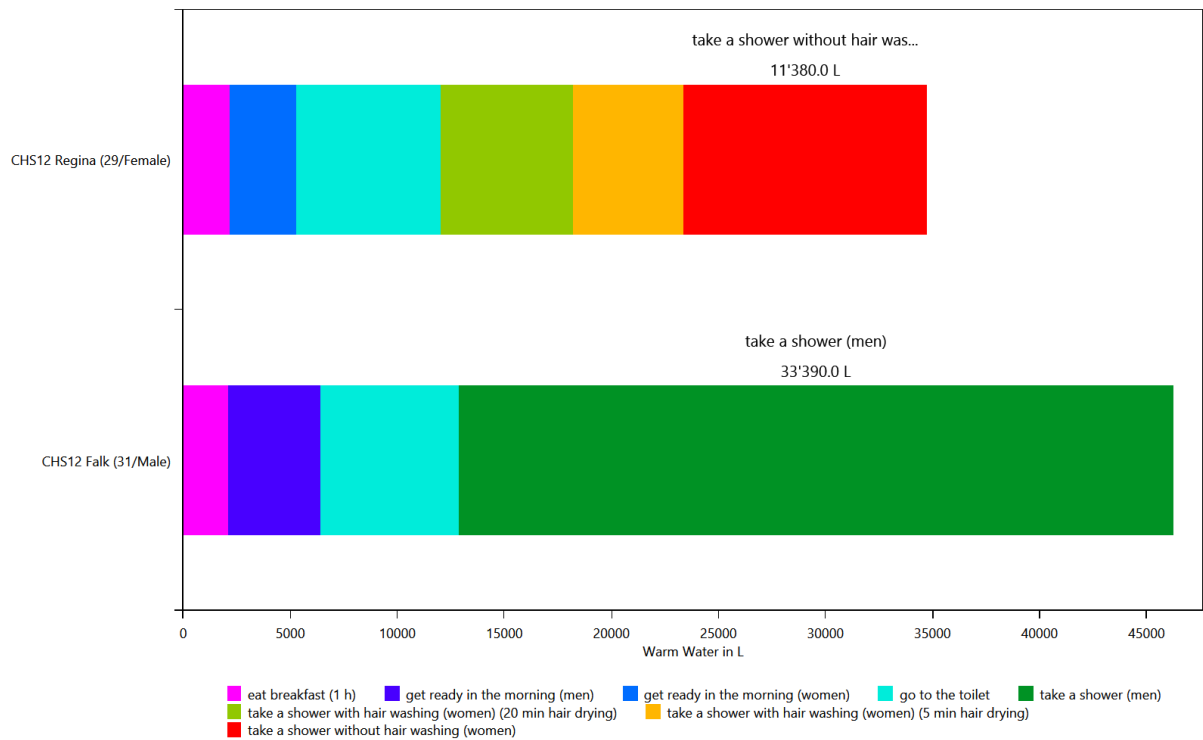
HH0 - Cold Water



HH0 - Electricity



HH0 - Warm Water

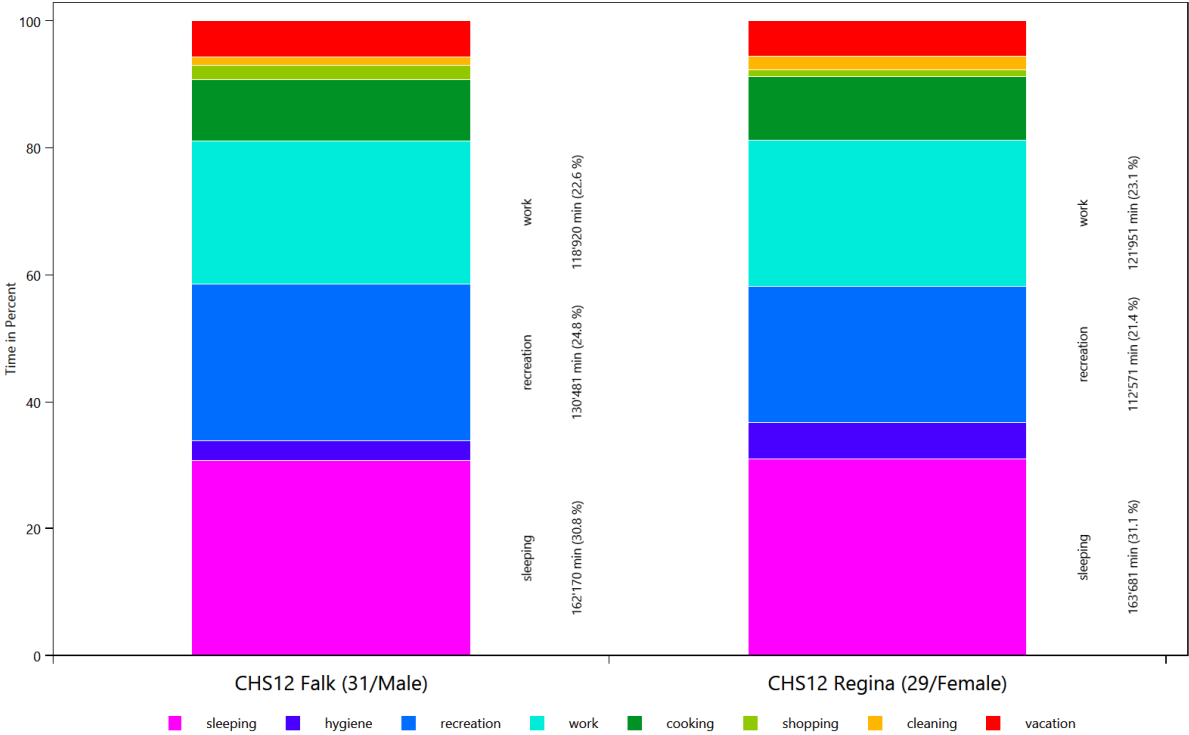


Time Use per Person Per Affordance according to different category definitions

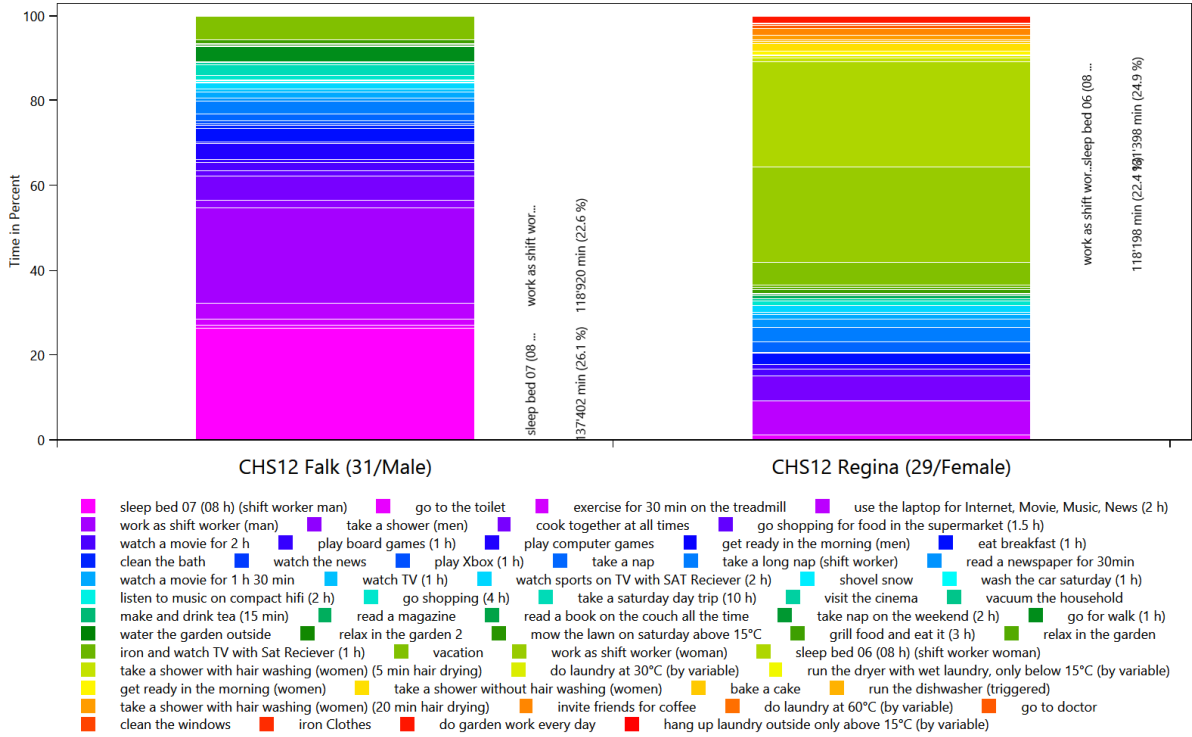
This is made from the files starting with: AffordanceTaggingSet

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.

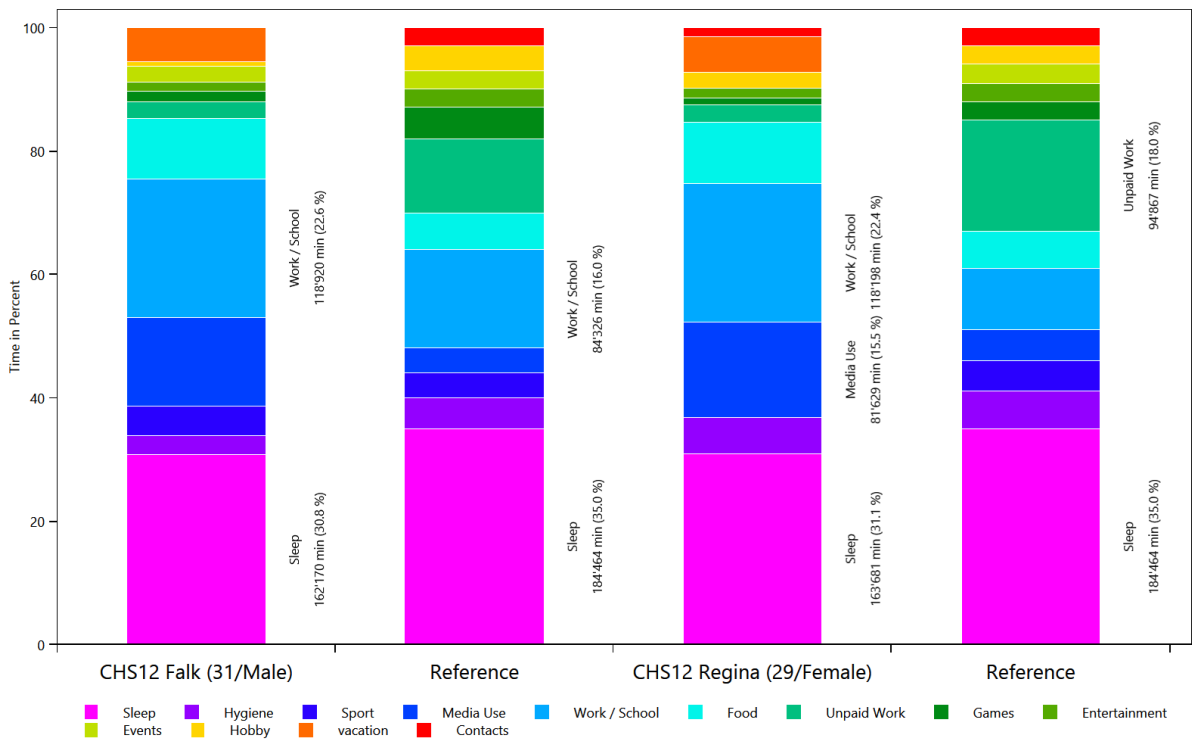
Basic Tagging - HH0



Tagging Set For Planning - HHO



Wo bleibt die Zeit - HHO

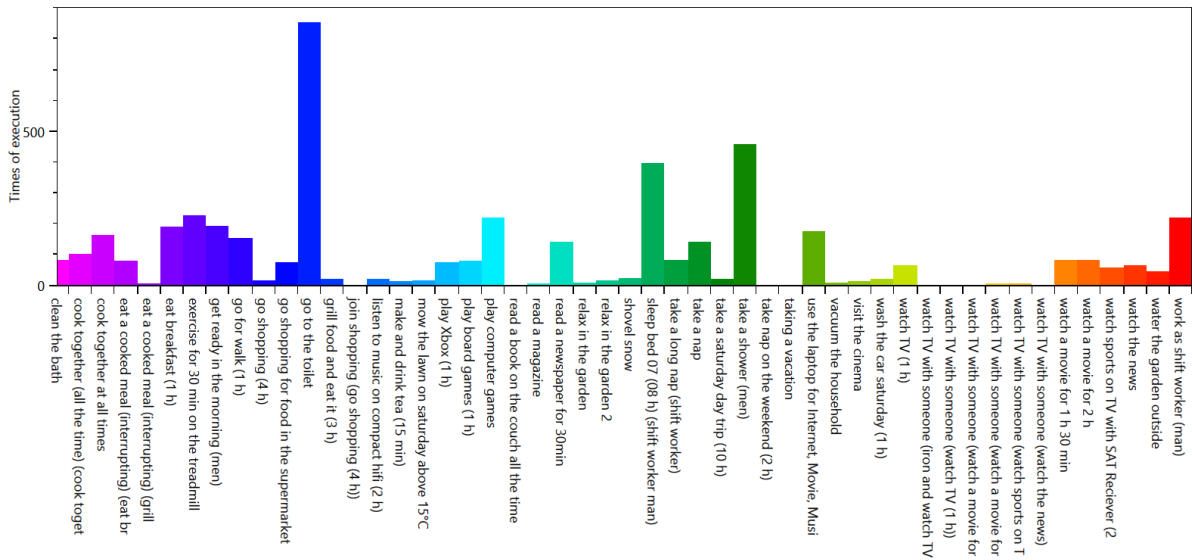


Overview of the actions of each member of the household

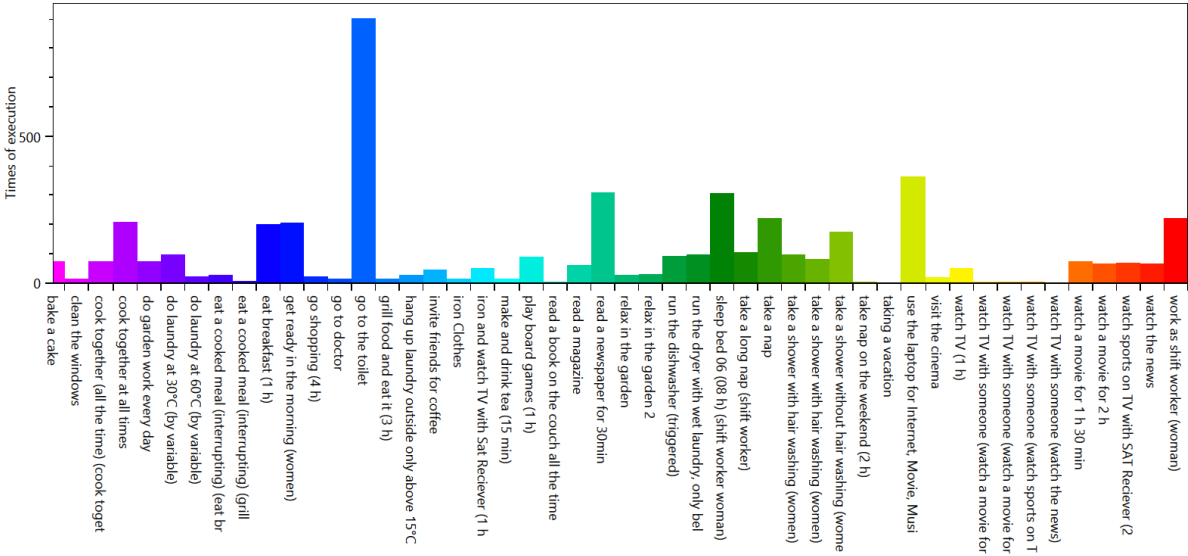
This is made from the files starting with: ExecutedActionsOverviewCount

These charts show how often each affordance was executed.

HH0 - CHS12 Falk (31 Male)



HH0 - CHS12 Regina (29 Female)

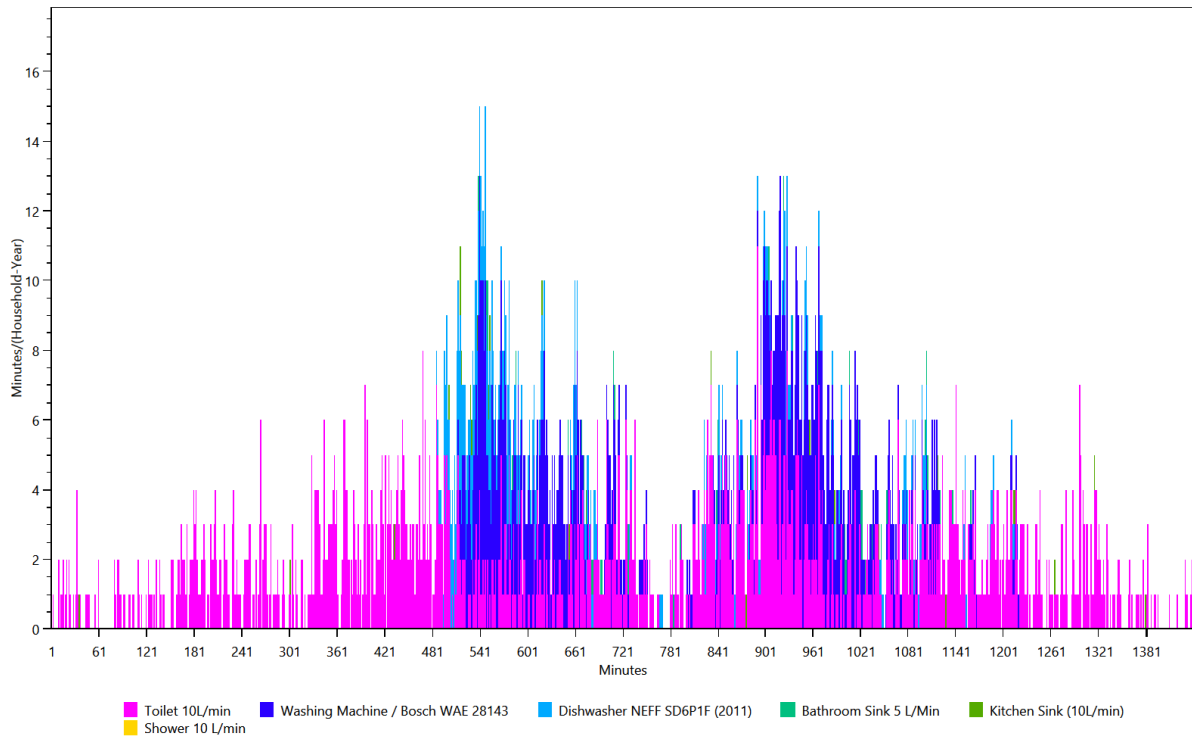


Overview of the time of the use per load type per device

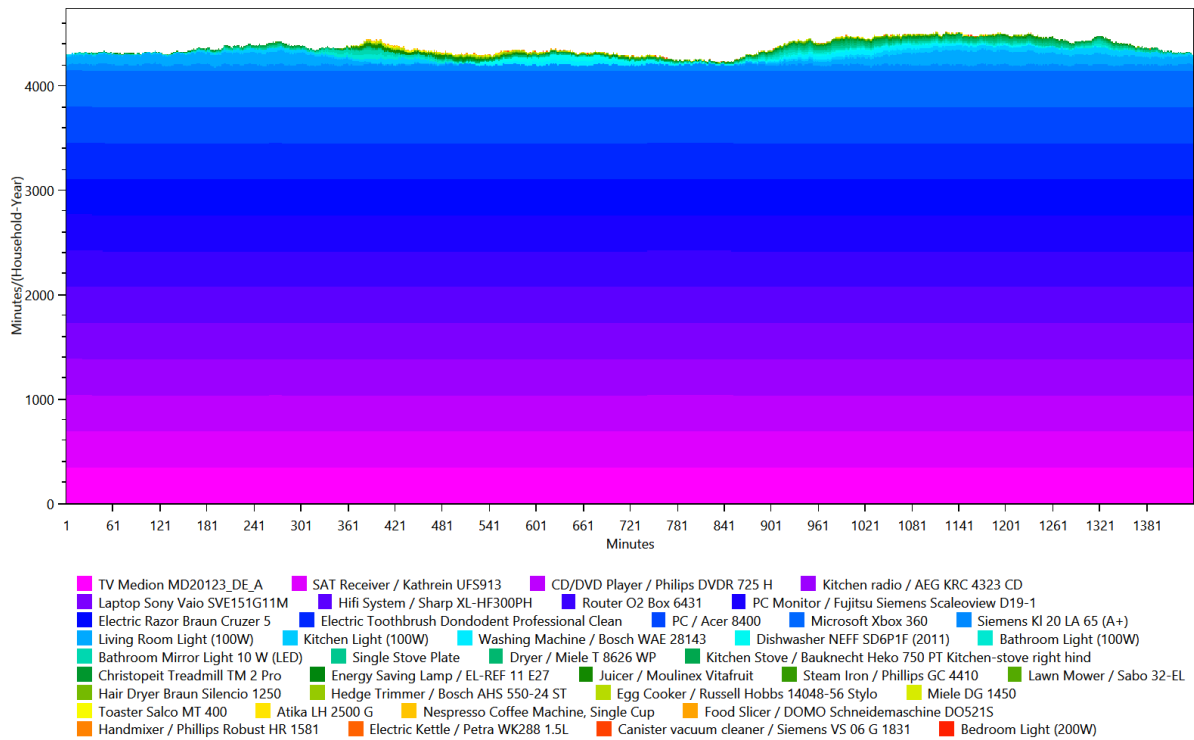
This is made from the files starting with: **TimeOfUseEnergyProfiles**

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

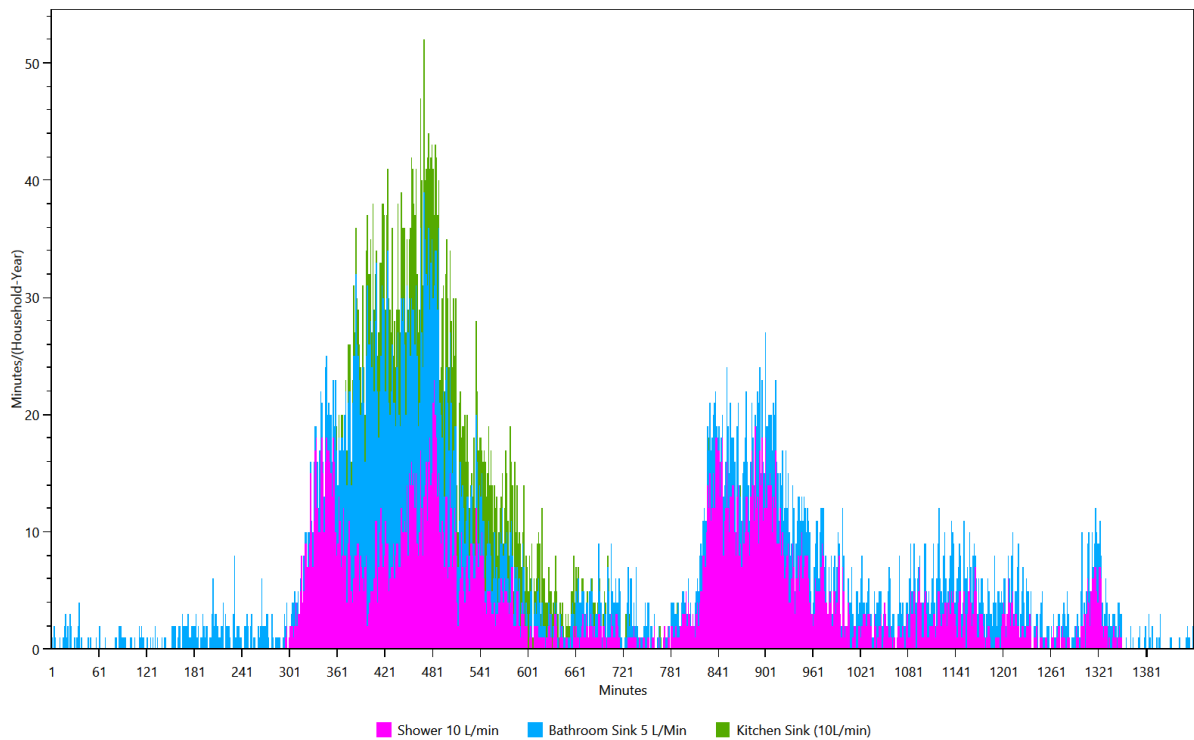
Cold Water



Electricity



Warm Water

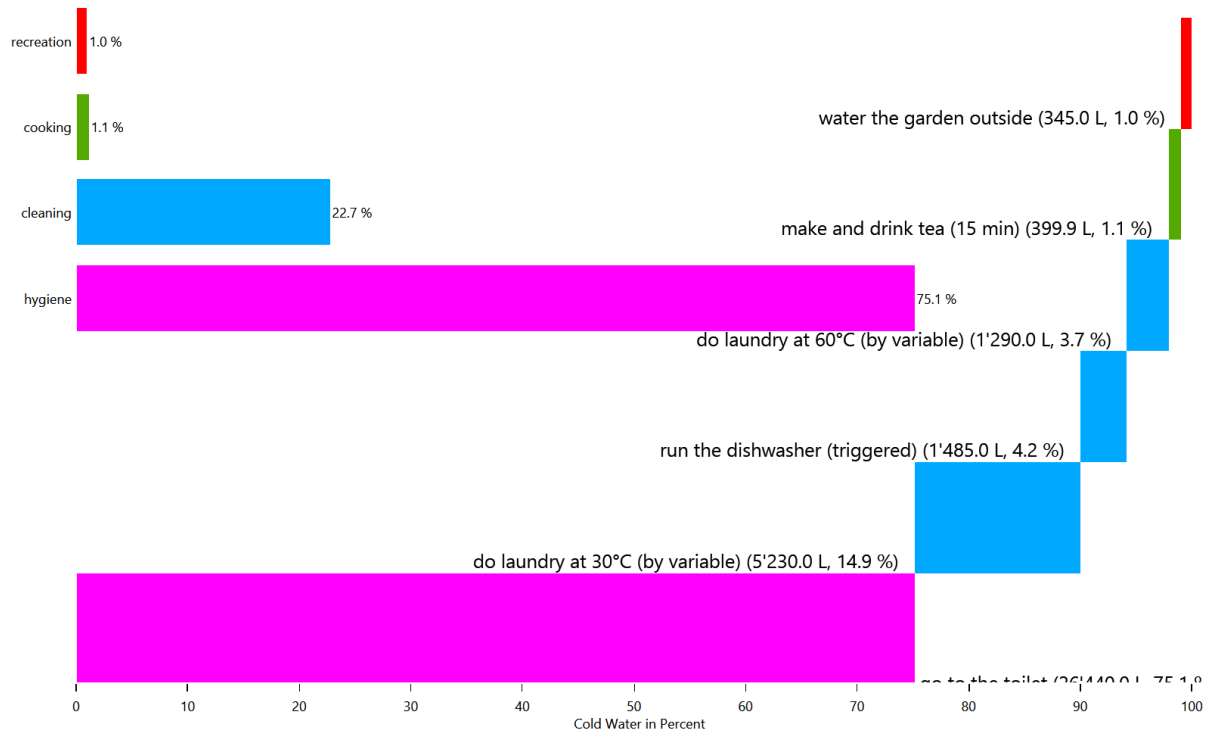


Energy/Resource use distribution per load type per affordance

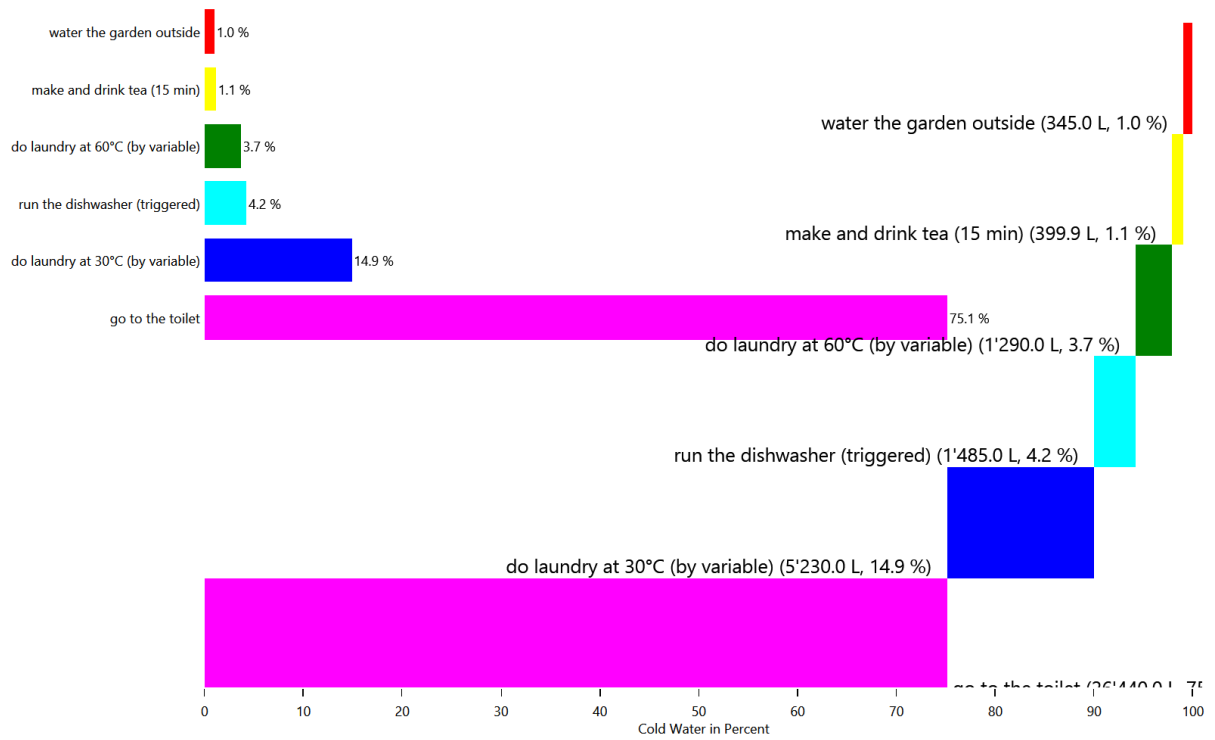
This is made from the files starting with: **AffordanceEnergyUse**

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

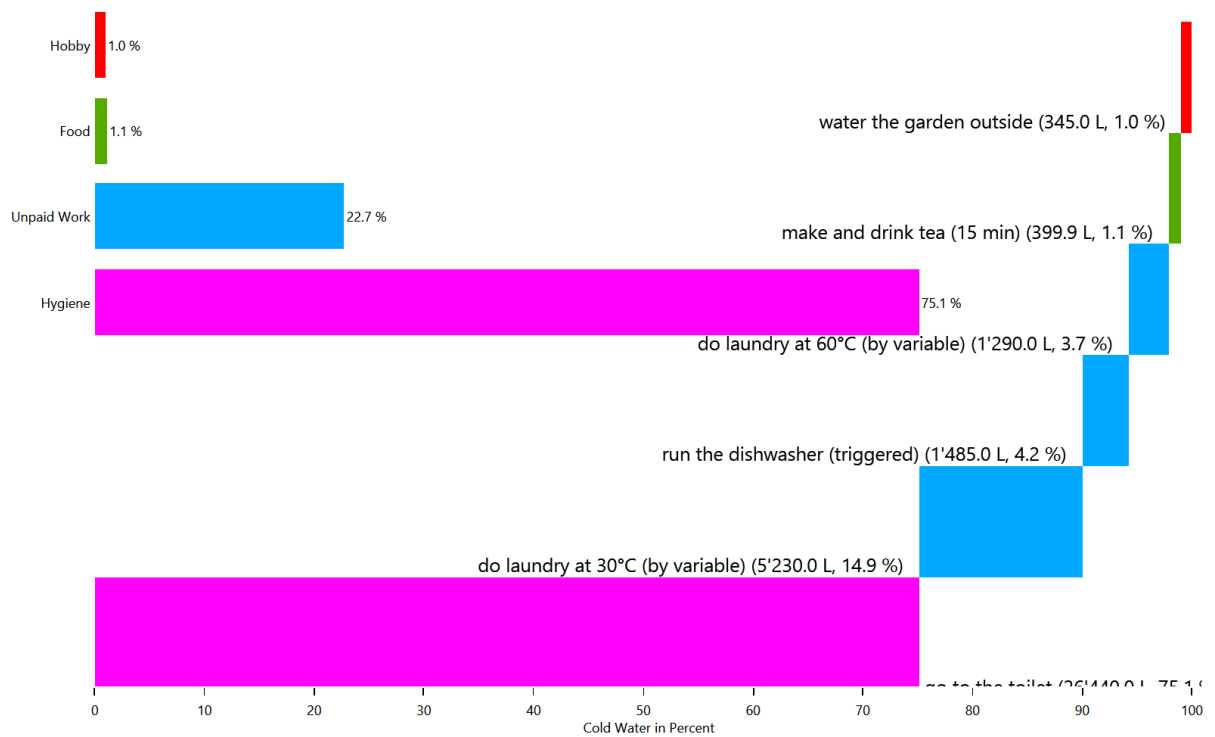
HH0 - Cold Water



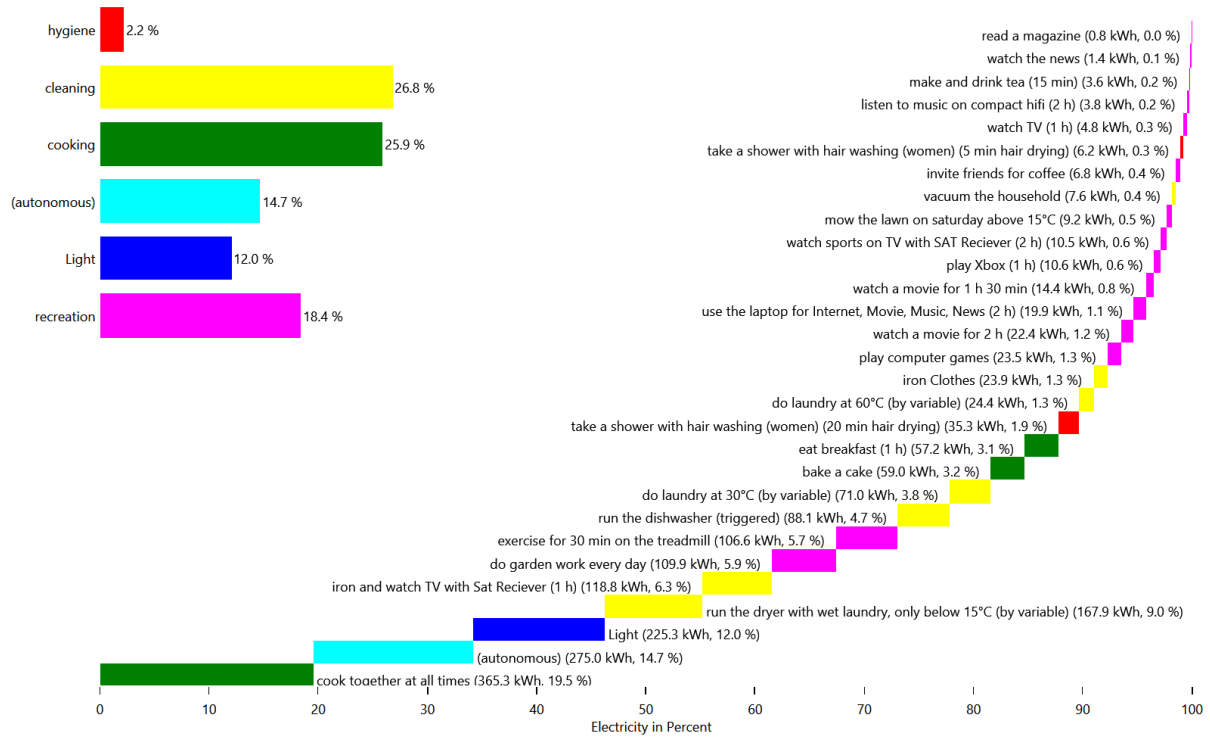
HH0 - Cold Water



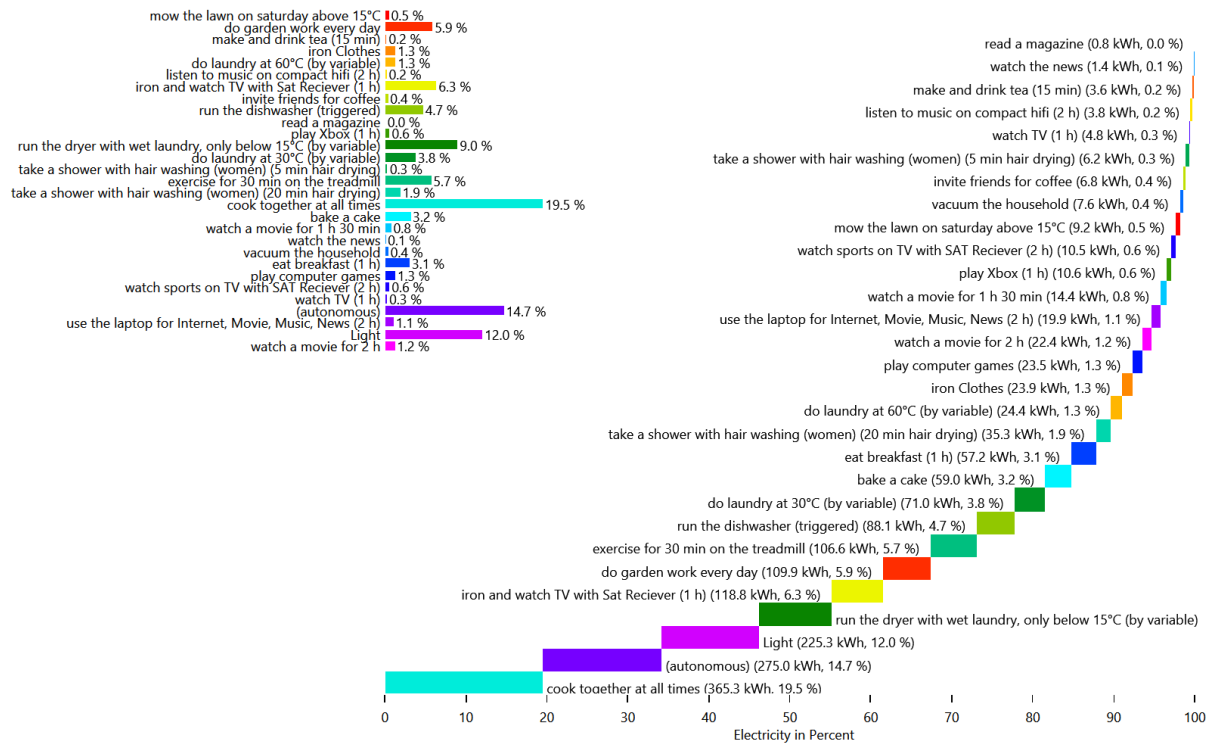
HH0 - Cold Water



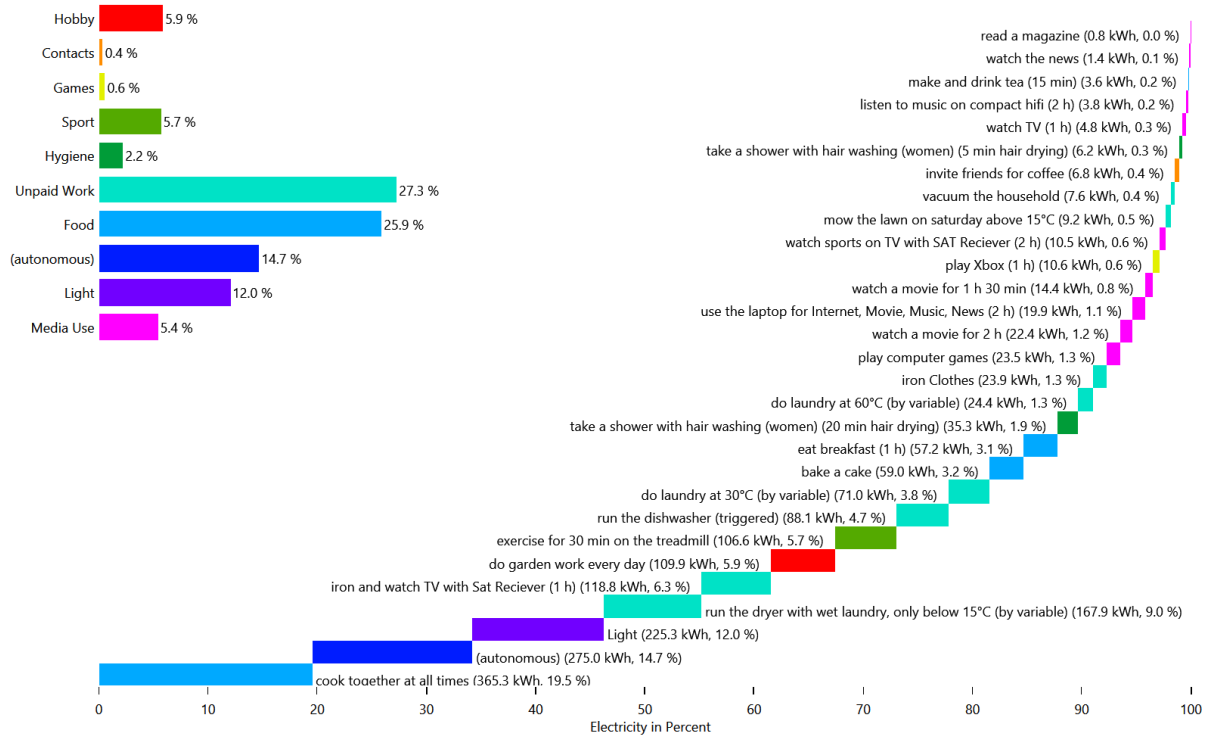
HH0 - Electricity



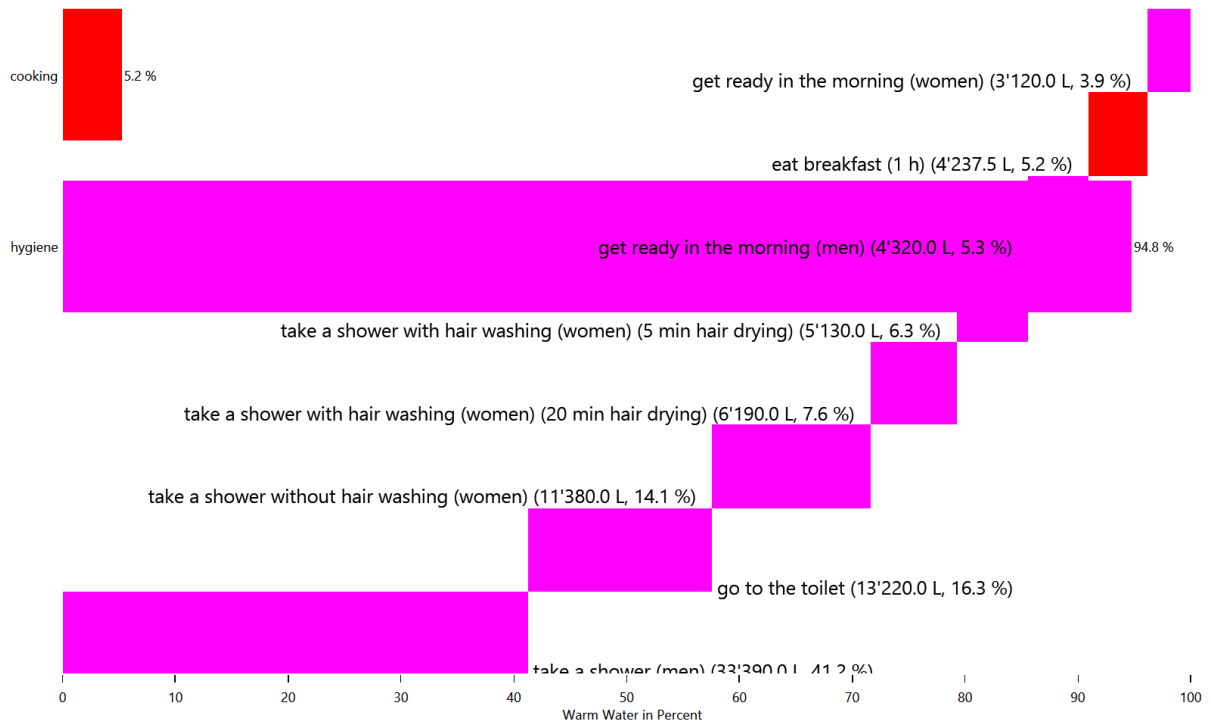
HH0 - Electricity



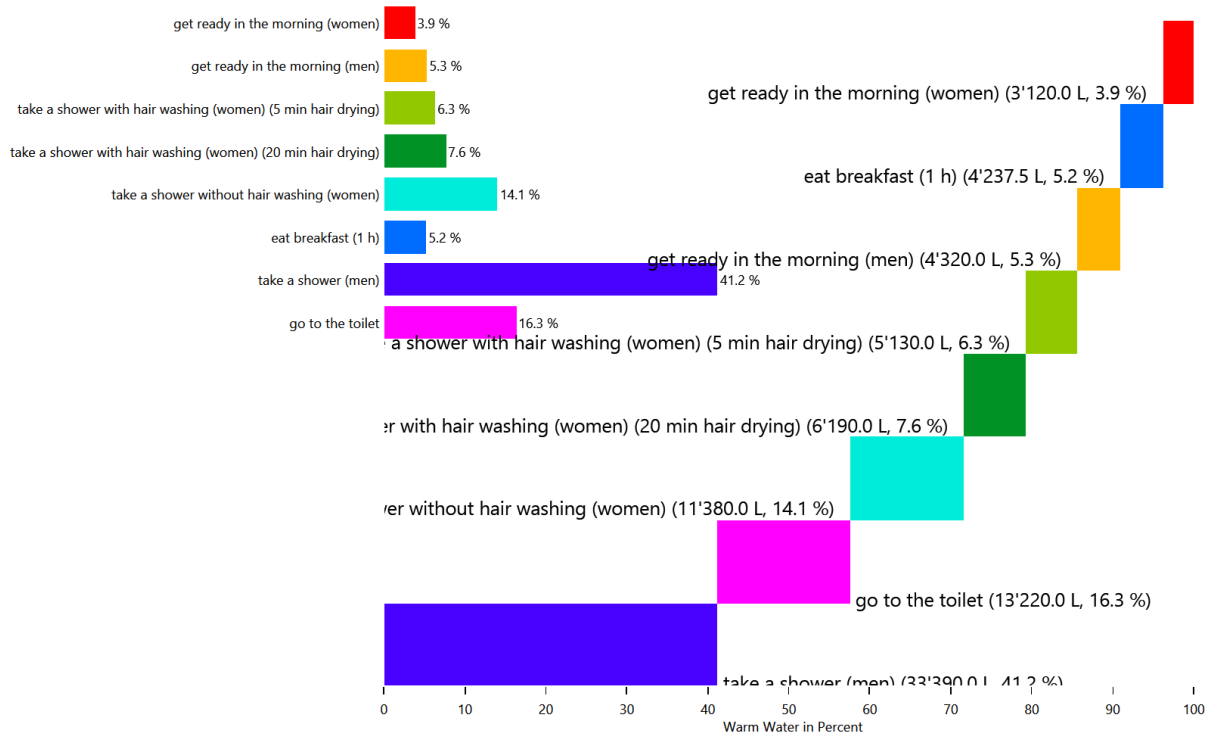
HH0 - Electricity



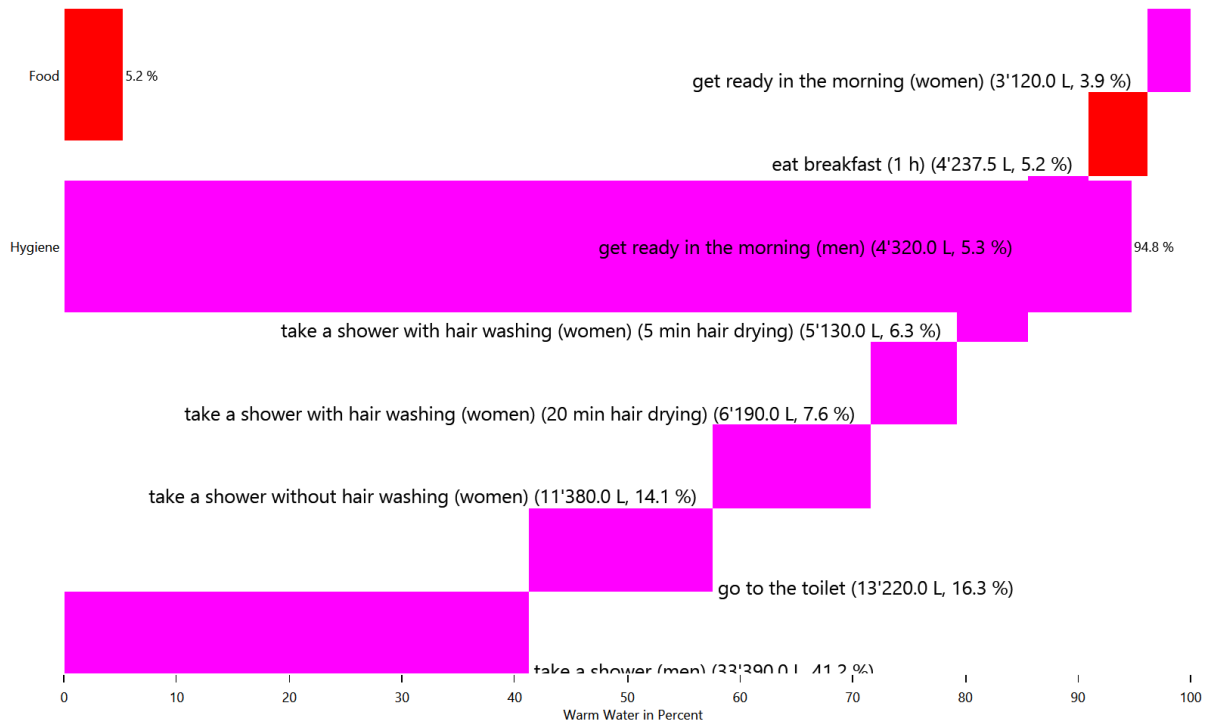
HH0 - Warm Water



HH0 - Warm Water



HH0 - Warm Water

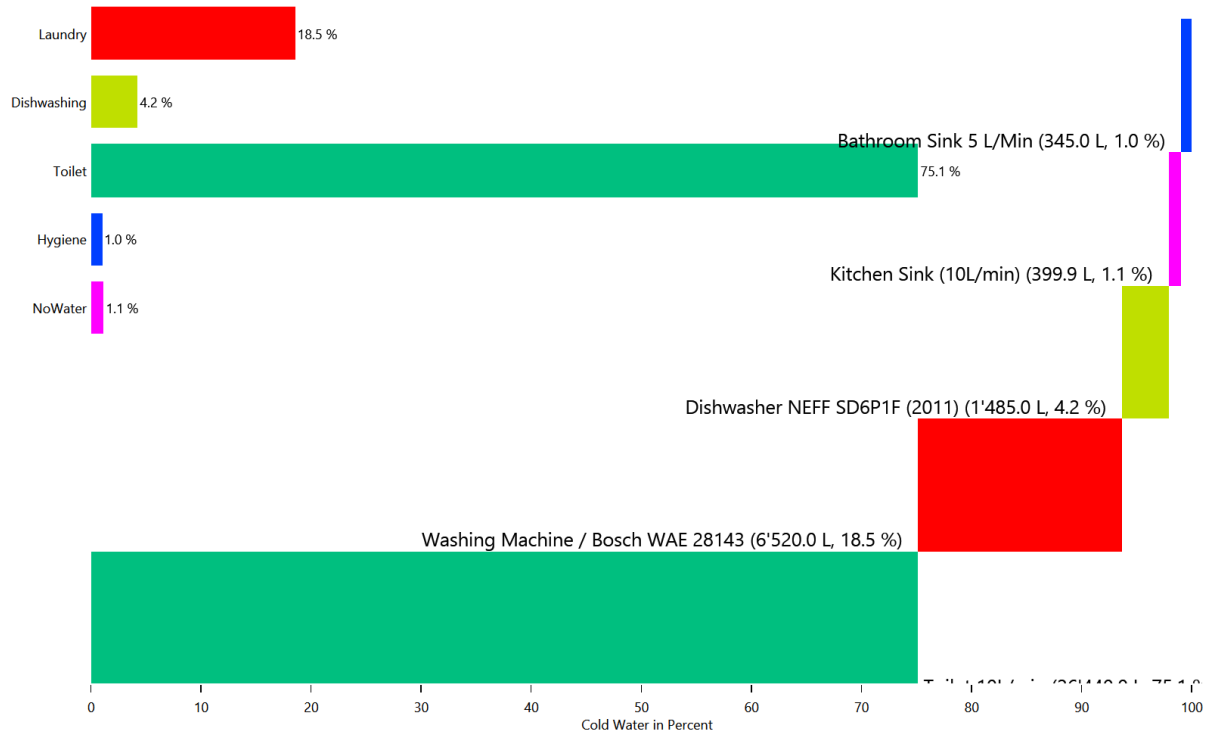


Energy use for each load type for each device

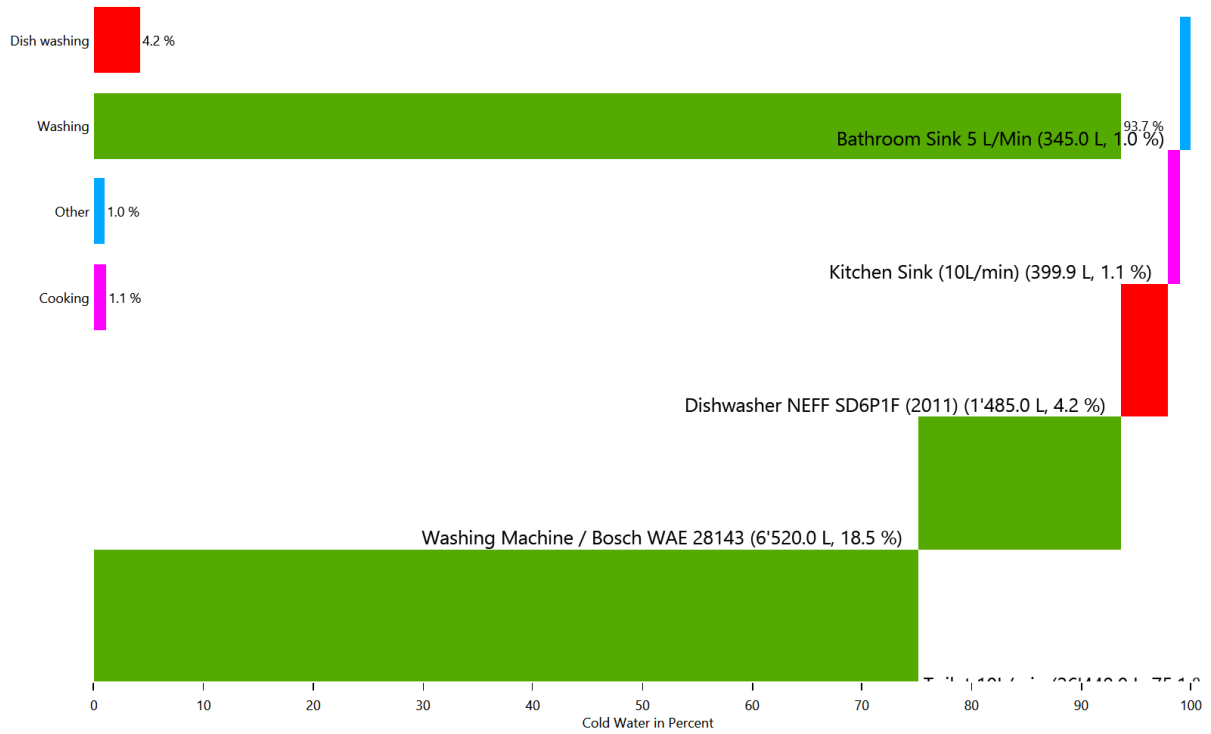
This is made from the files starting with: DeviceSums

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

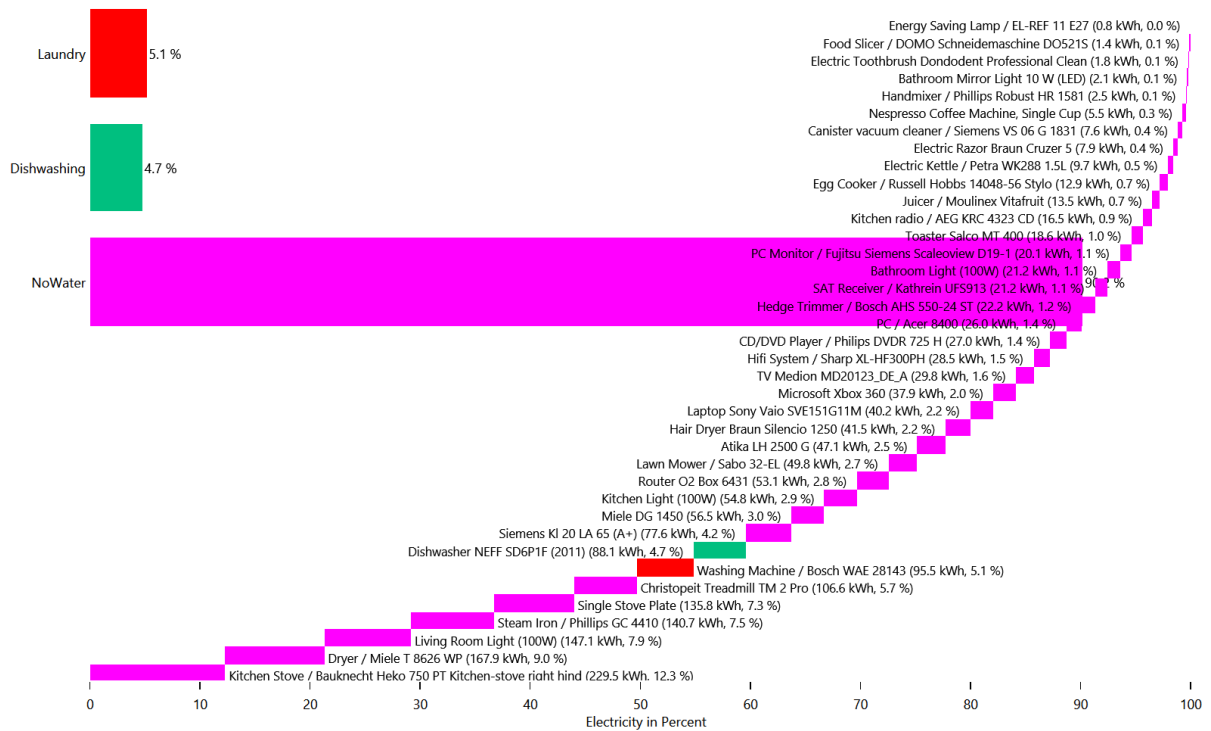
Cold Water



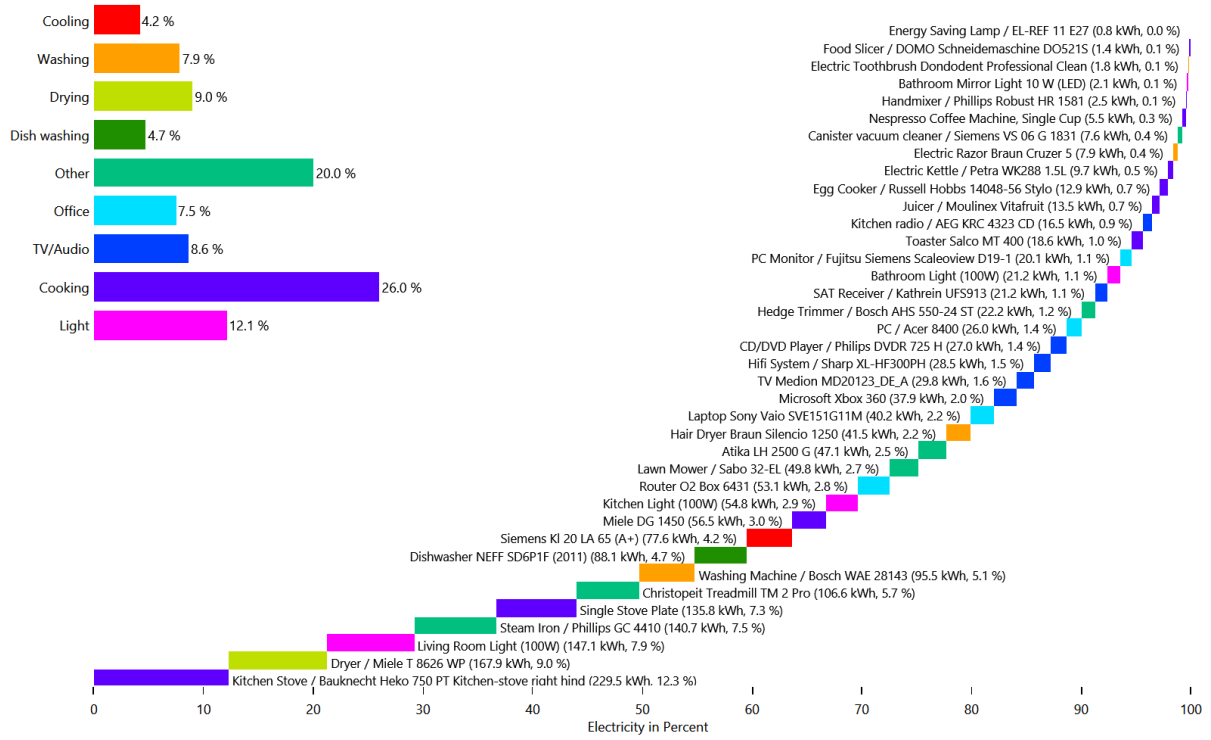
Cold Water



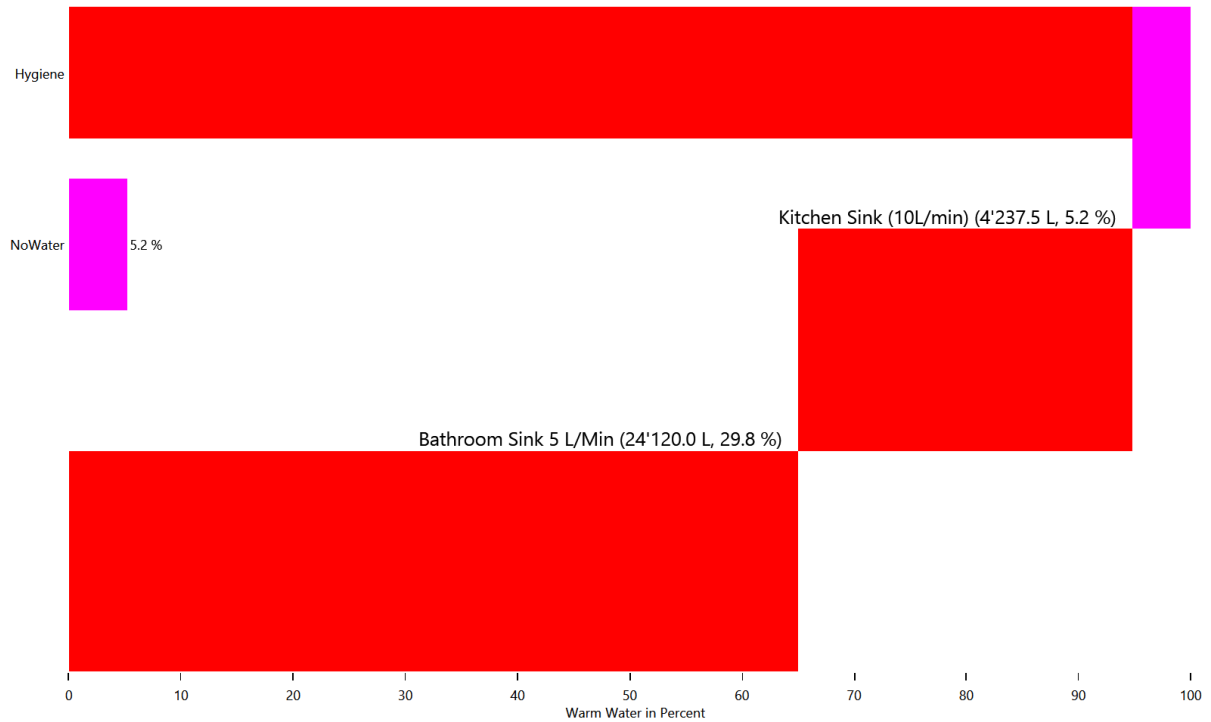
Electricity



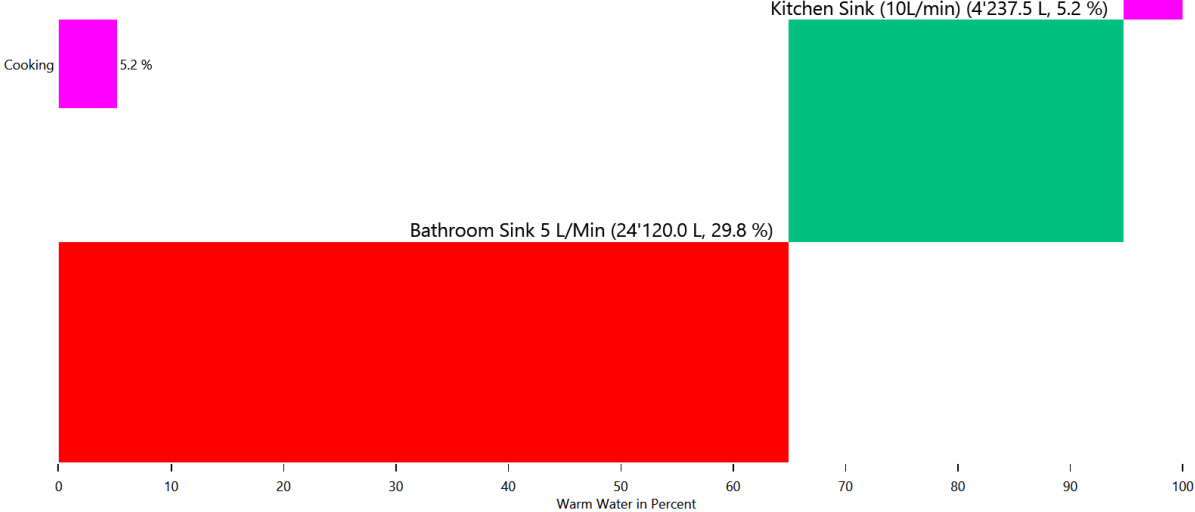
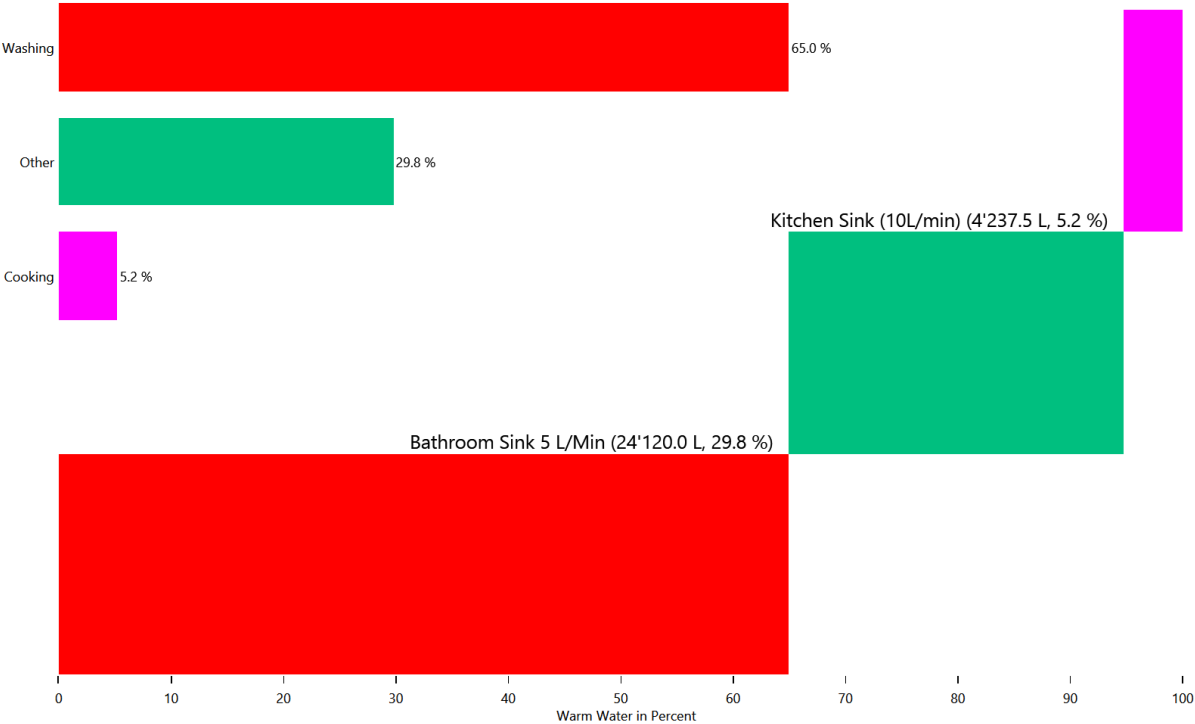
Electricity



Warm Water



Warm Water

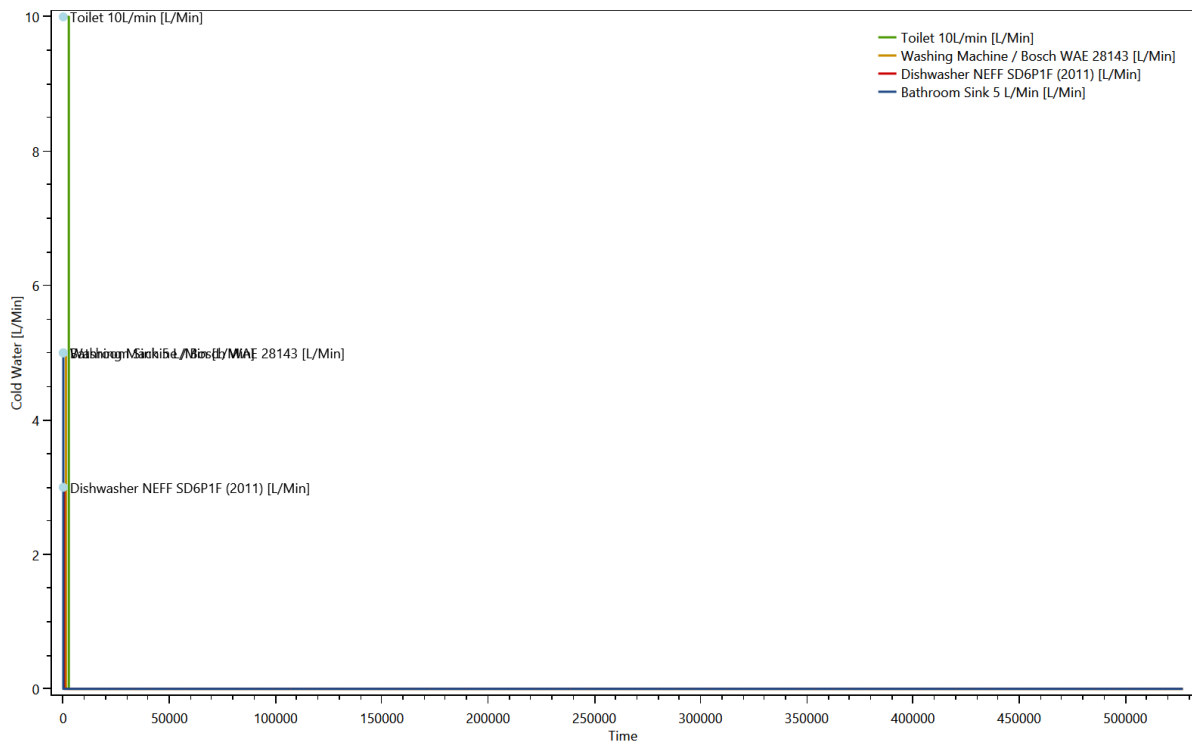


Duration curve for each device for each load type

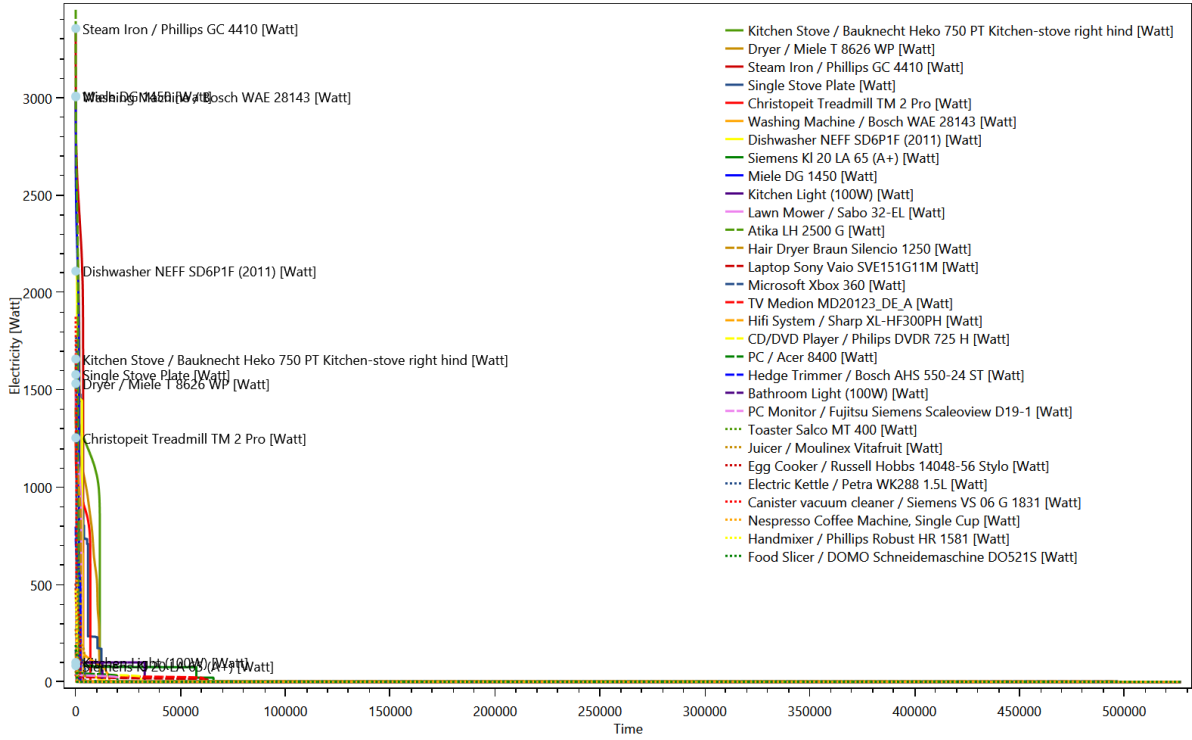
This is made from the files starting with: DeviceDurationCurves

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

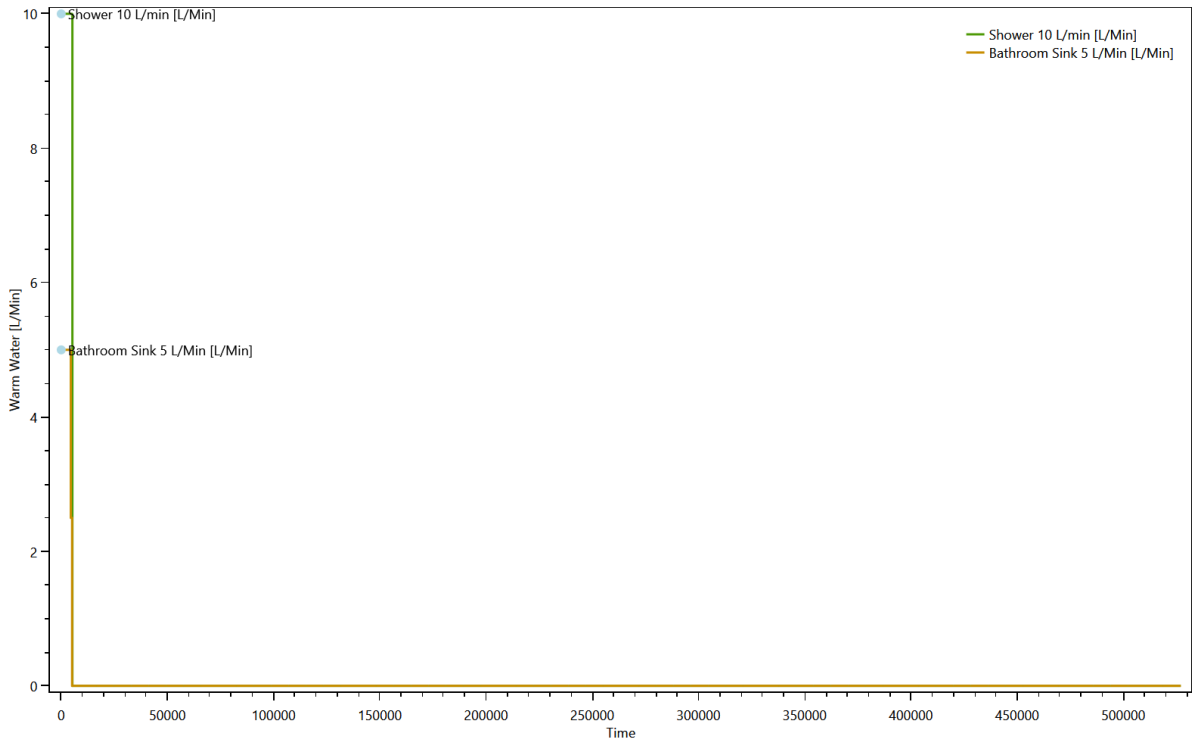
Cold Water



Electricity



Warm Water

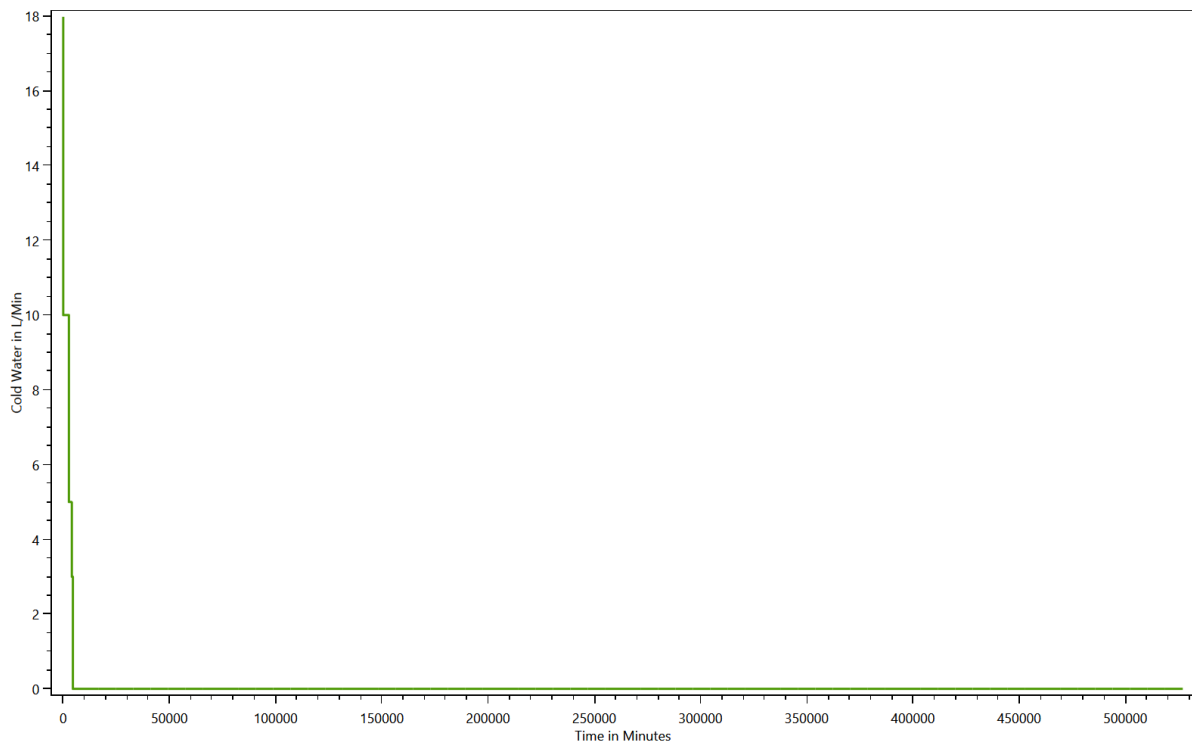


Duration curve for each load type

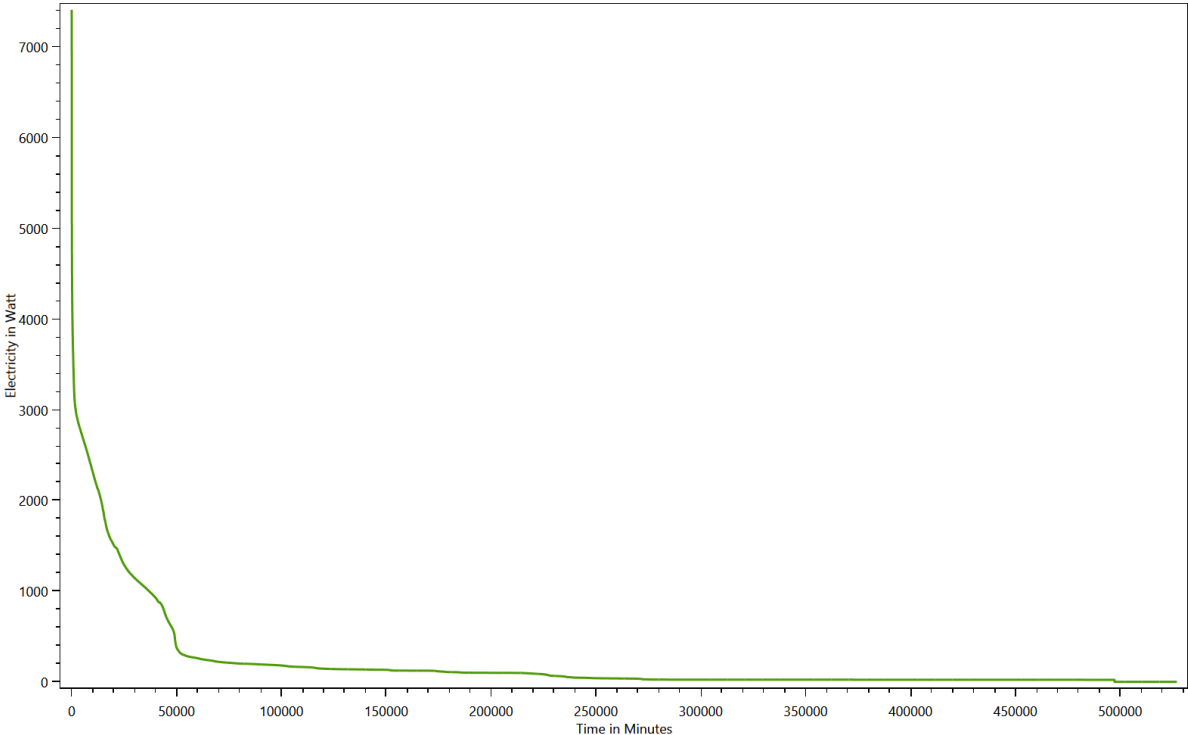
This is made from the files starting with: **DurationCurve**

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

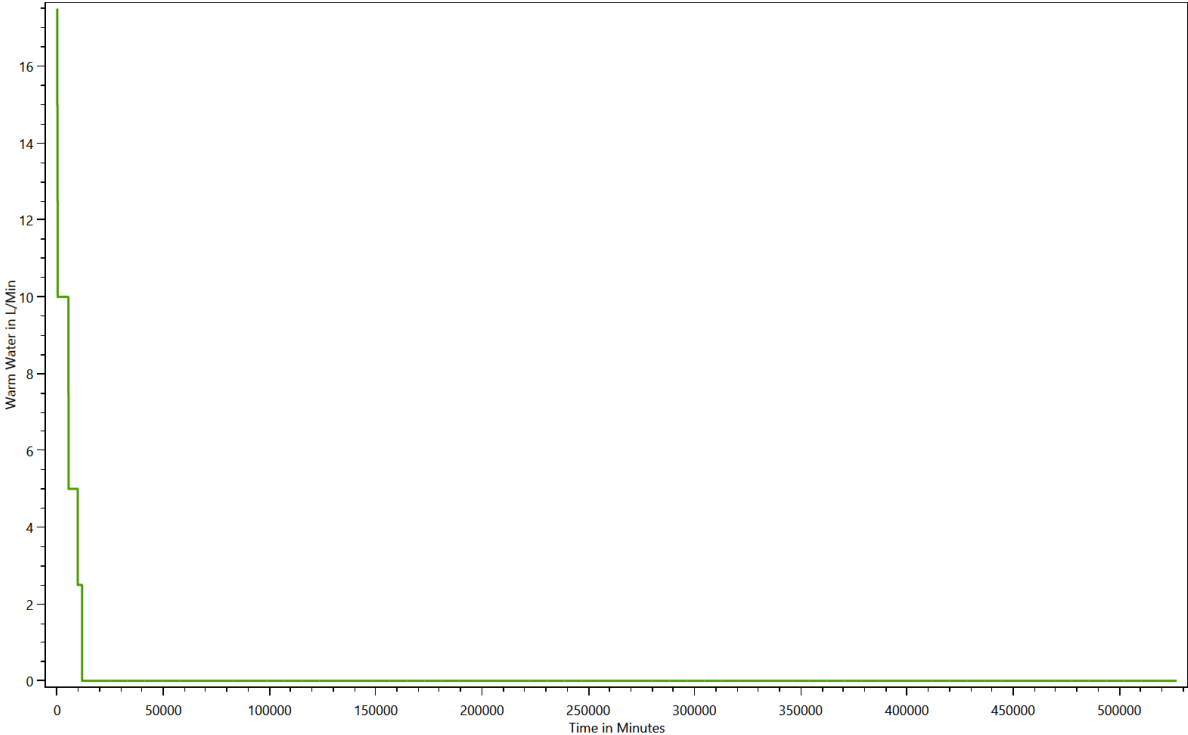
Cold Water



Electricity



Warm Water

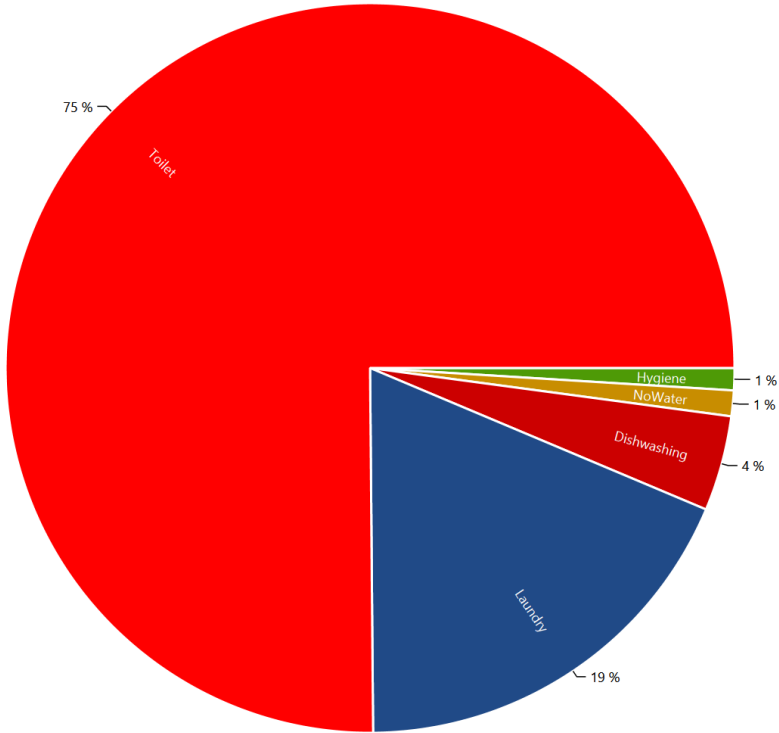


Grouped energy use for each load type for each device

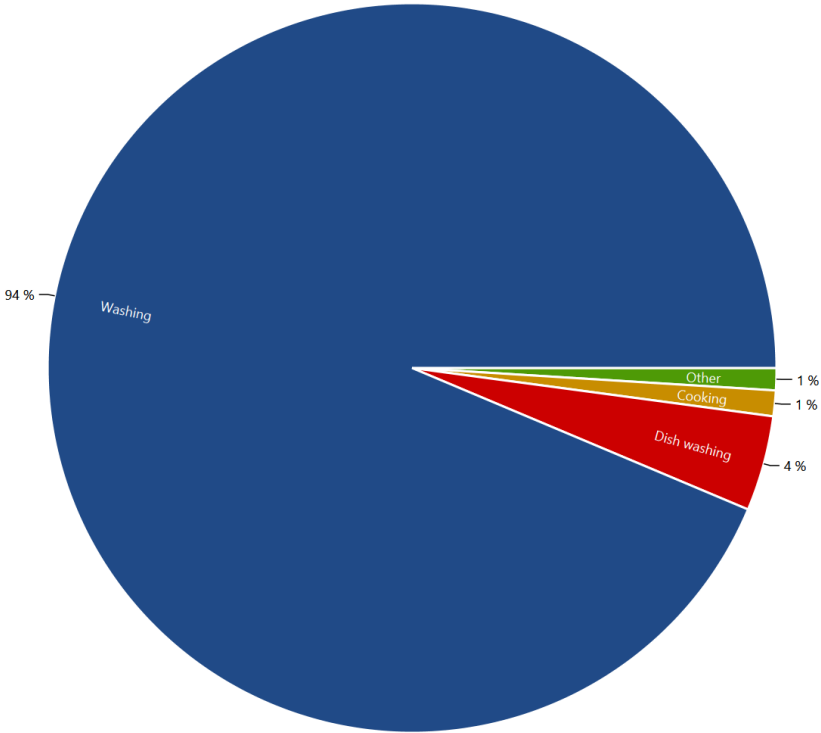
This is made from the files starting with: DeviceTaggingSet

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

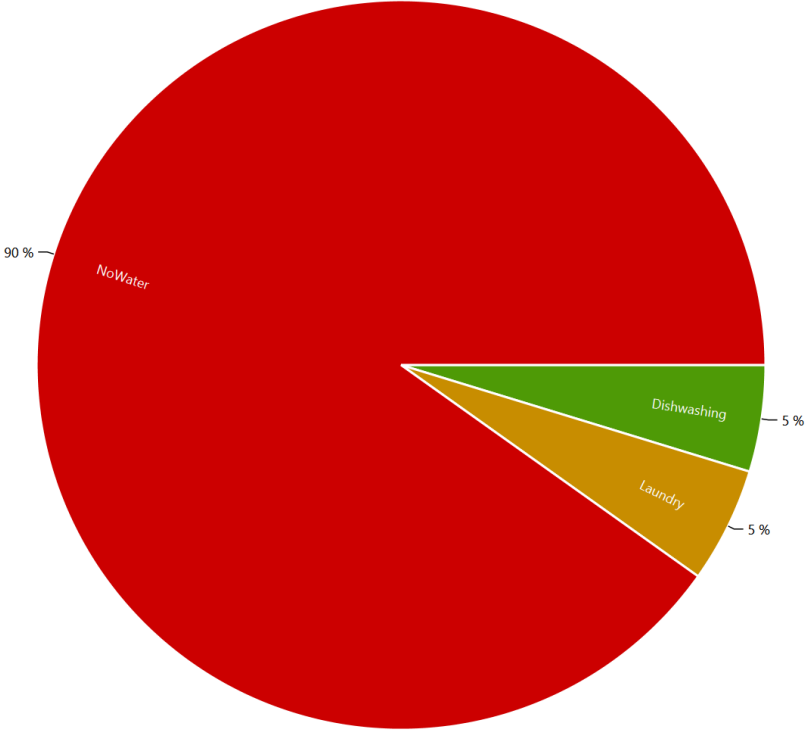
HH0 - Destatis Water Usage Statistics - Cold Water



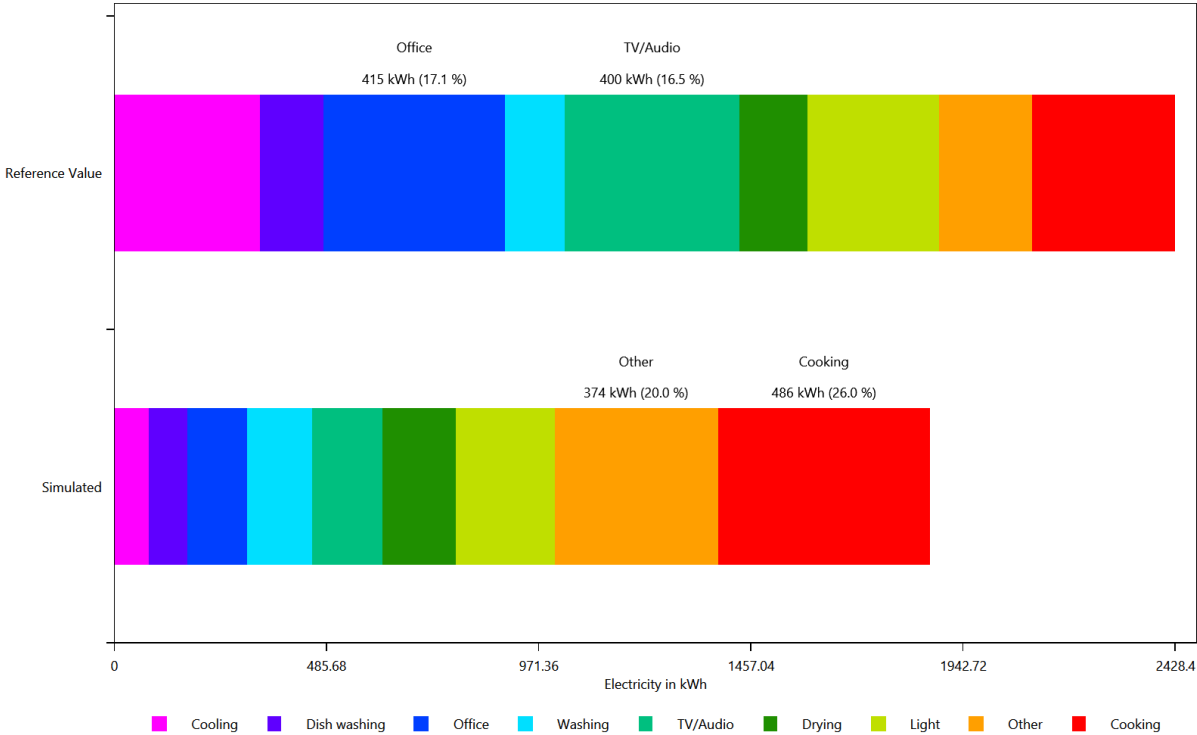
HH0 - Energieagentur - Cold Water



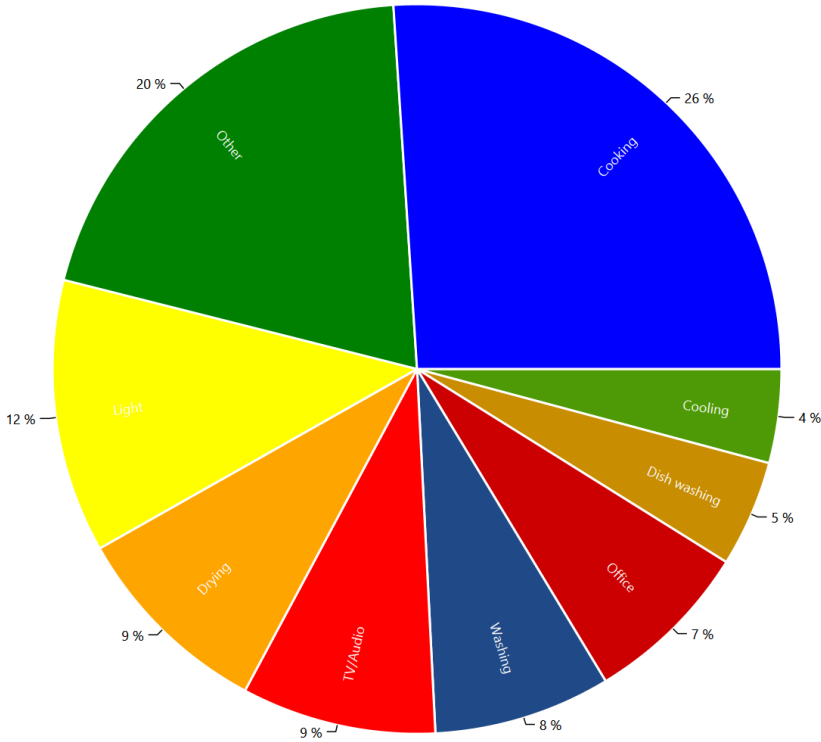
HH0 - Destatis Water Usage Statistics - Electricity



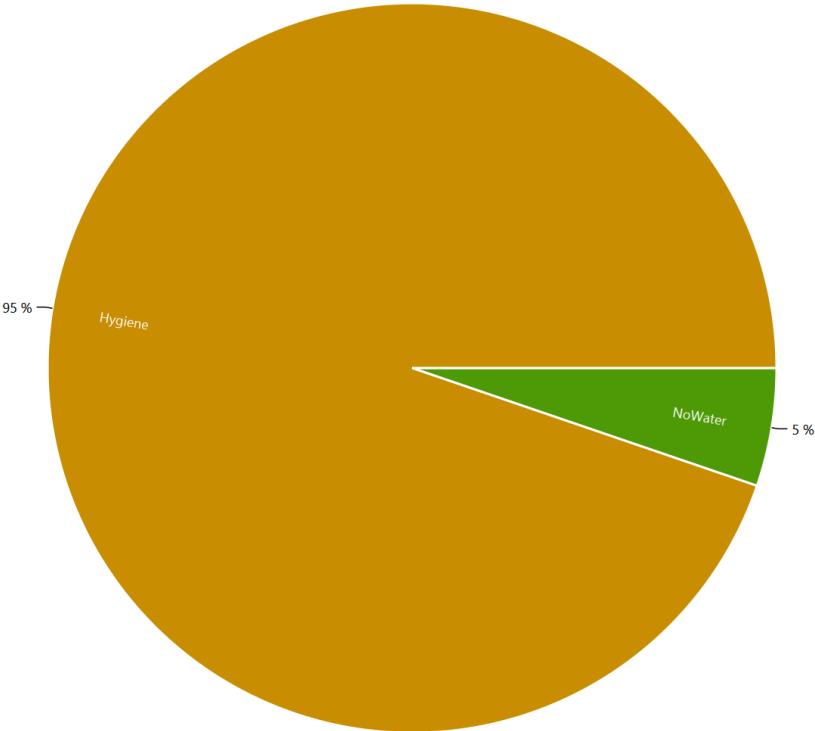
HH0 - Energieagentur - Electricity



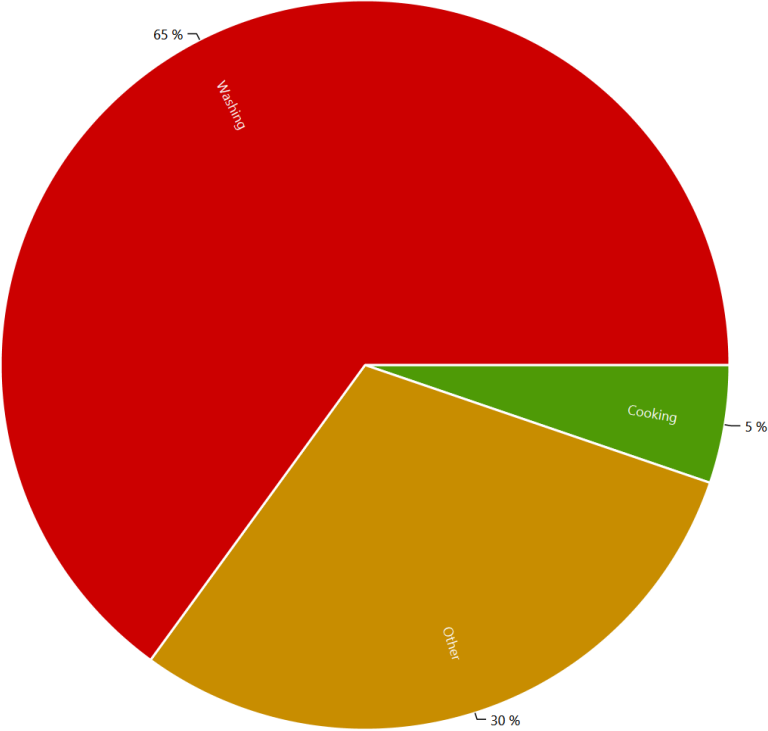
HH0 - Energieagentur - Electricity



HH0 - Destatis Water Usage Statistics - Warm Water



HH0 - Energieagentur - Warm Water

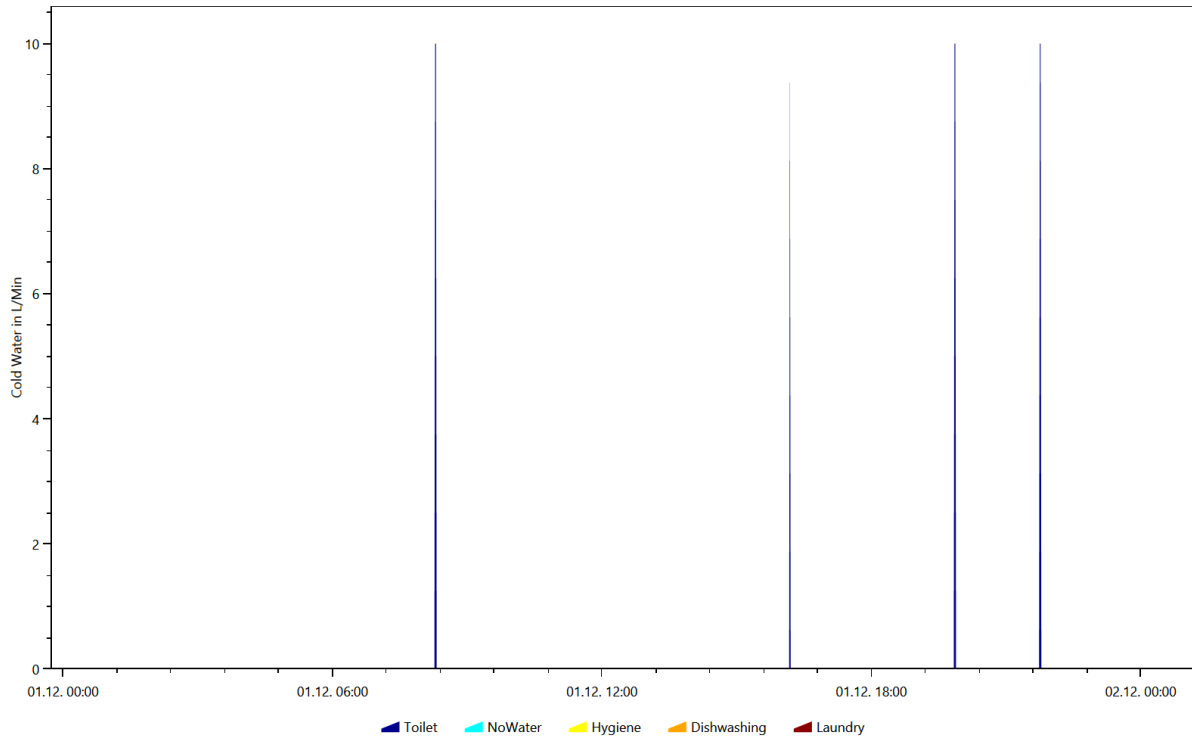


Example of the device profiles for each load type

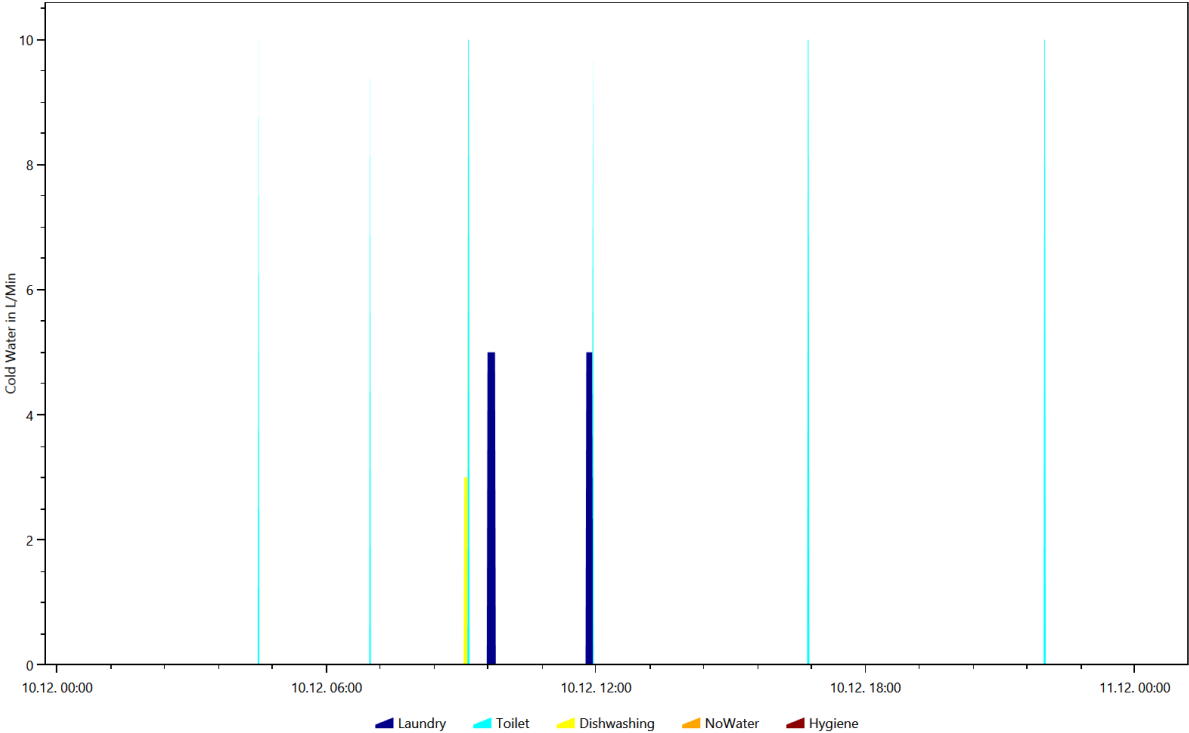
This is made from the files starting with: DeviceProfiles

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

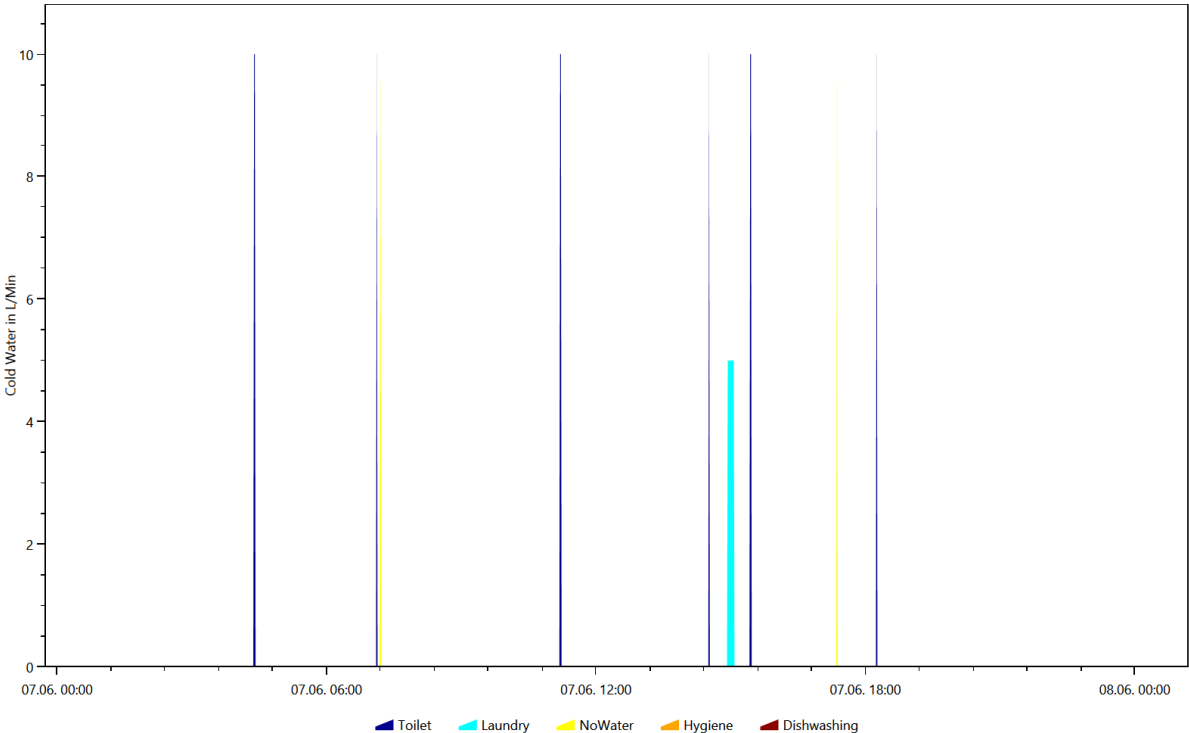
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.12.1



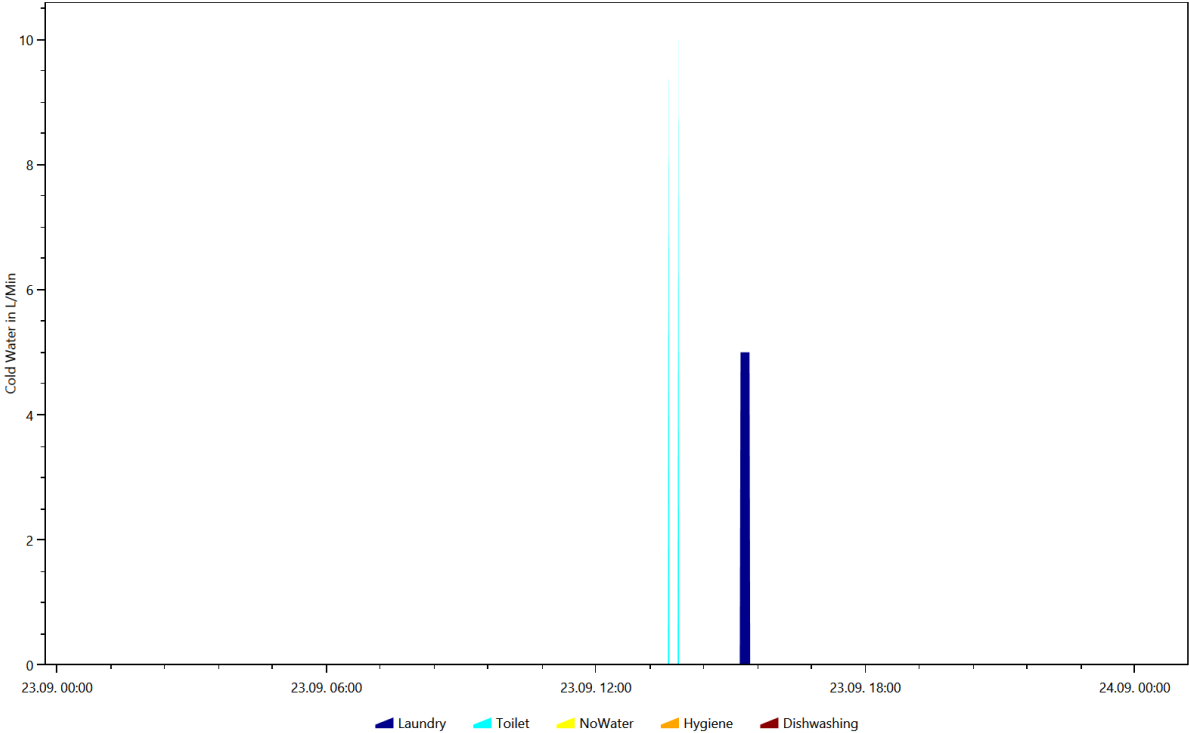
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.12.10



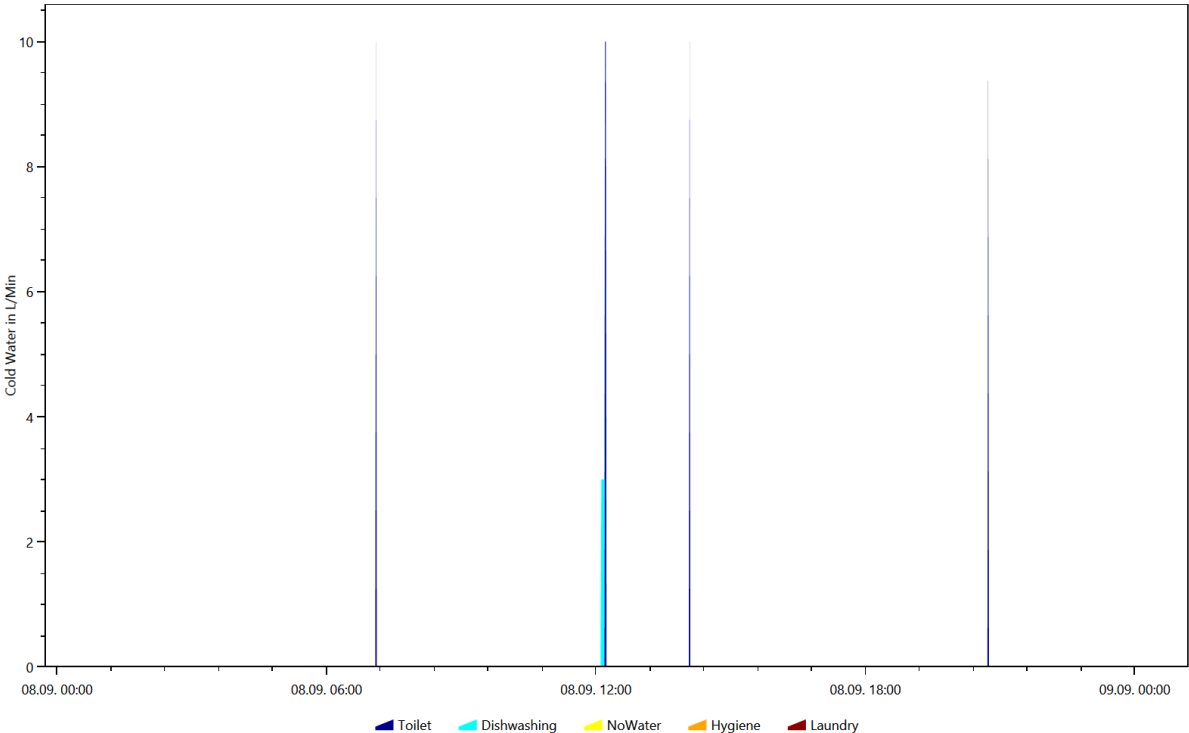
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.6.7



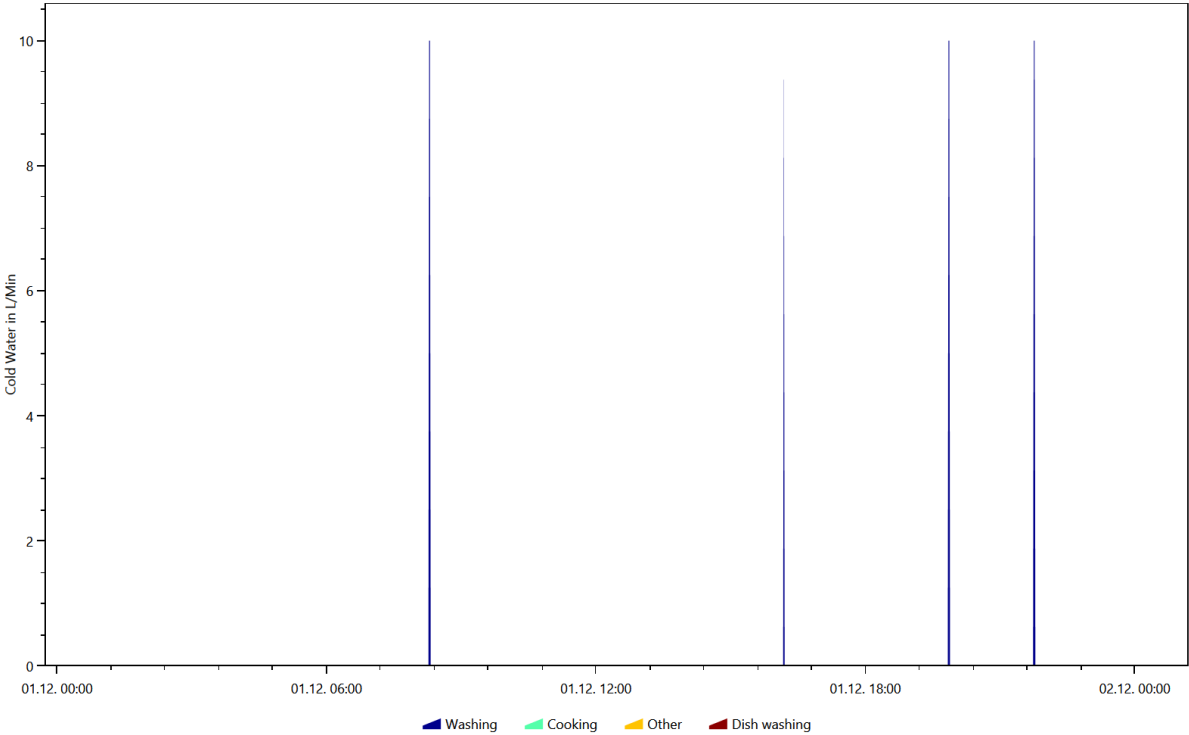
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.9.23



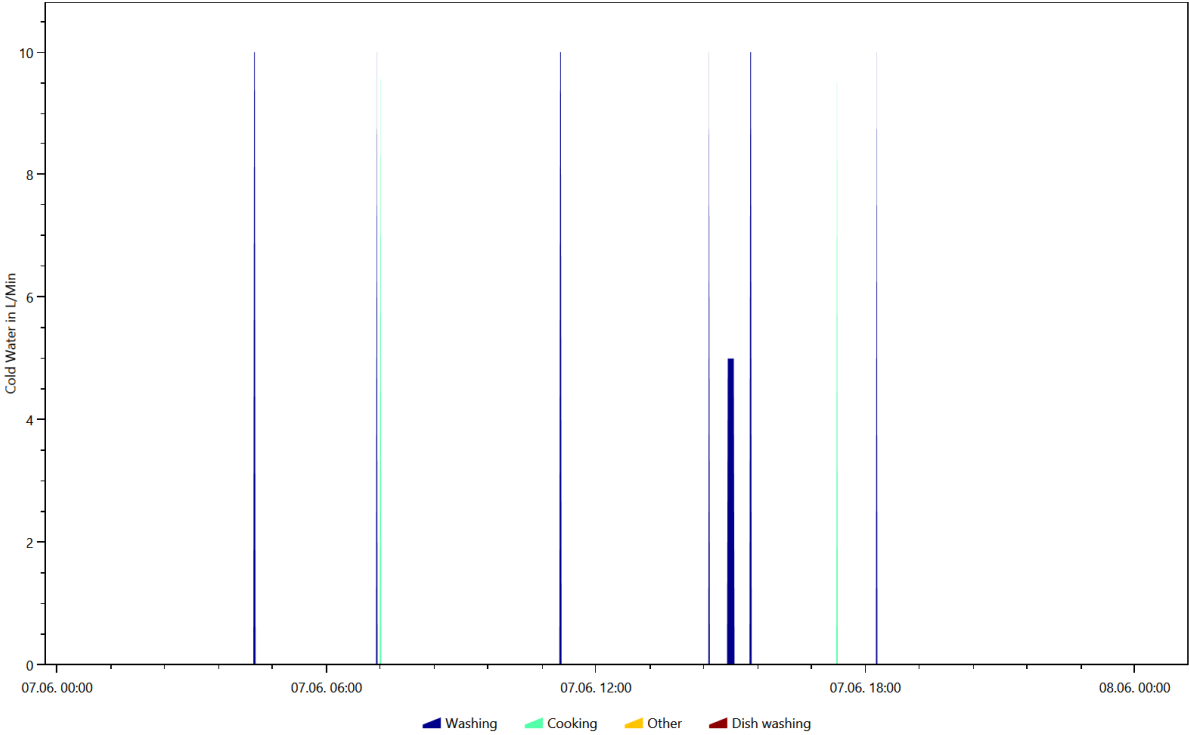
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.9.8



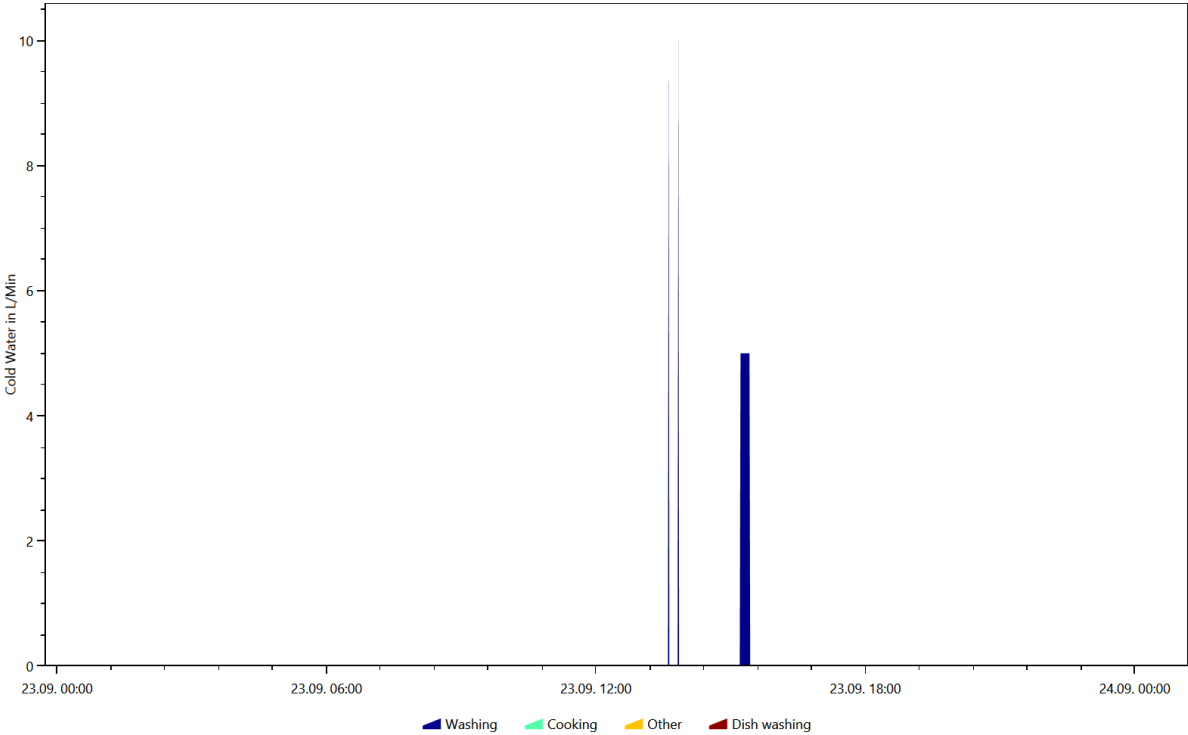
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.12.1



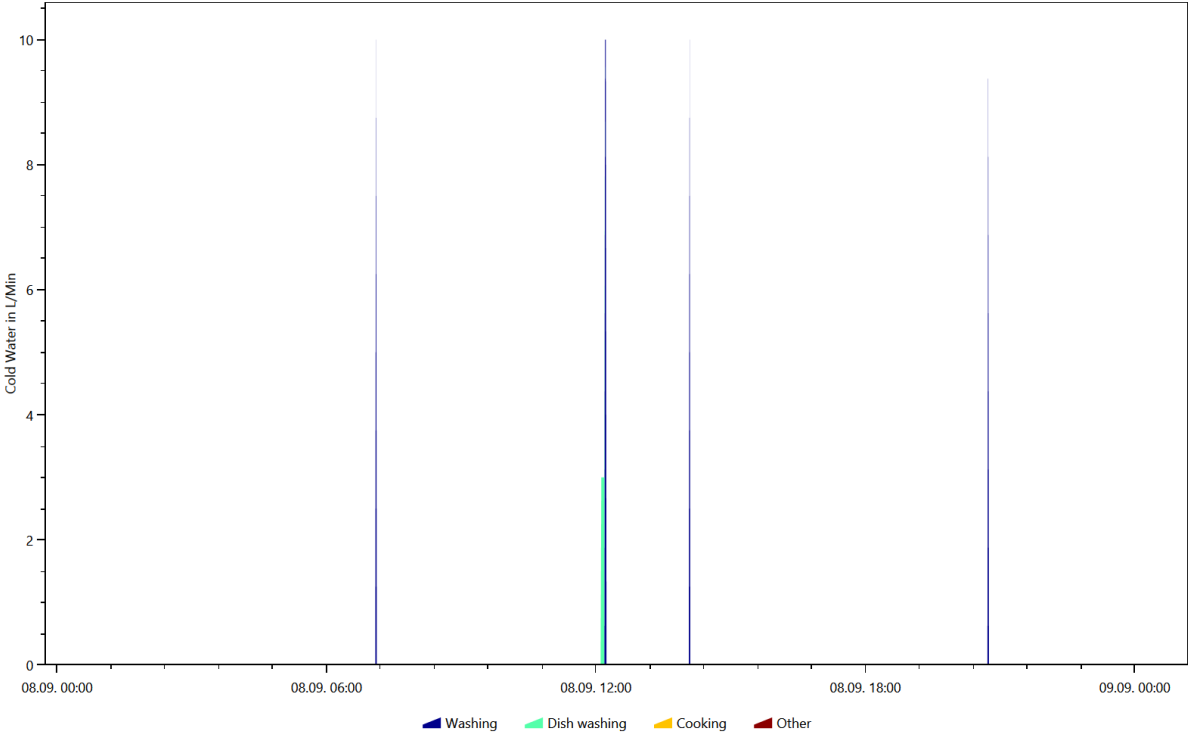
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.6.7



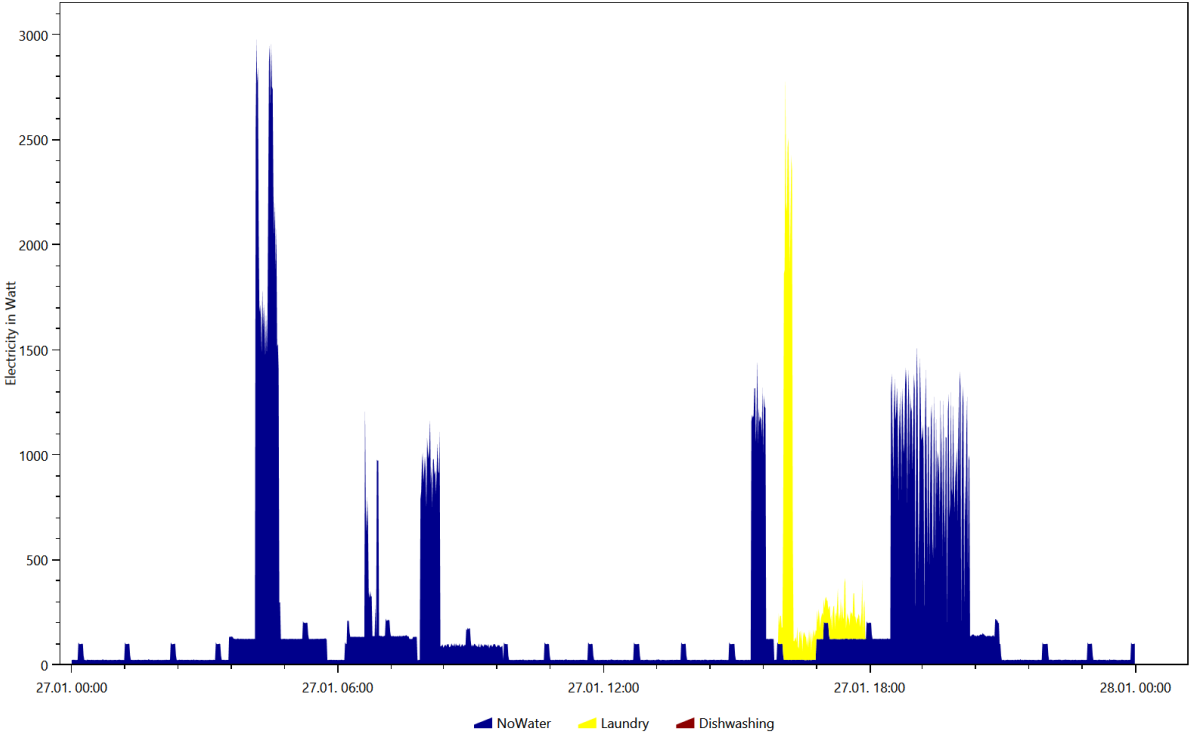
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.9.23



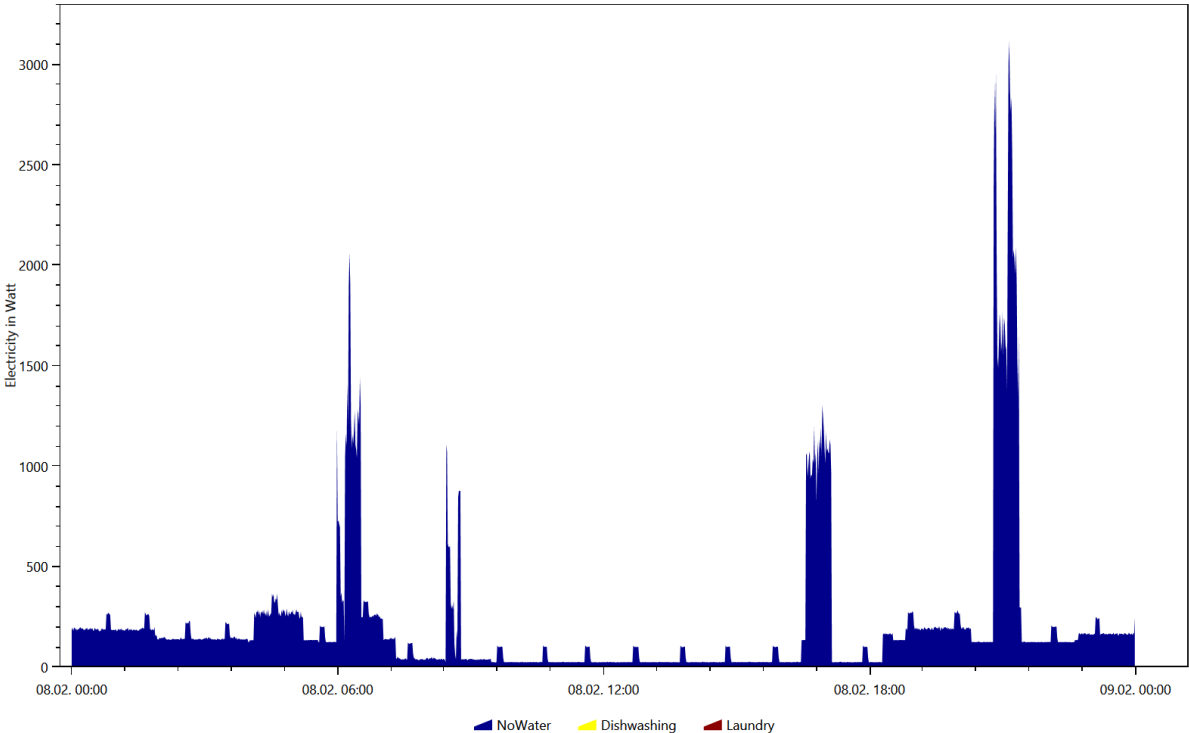
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.9.8



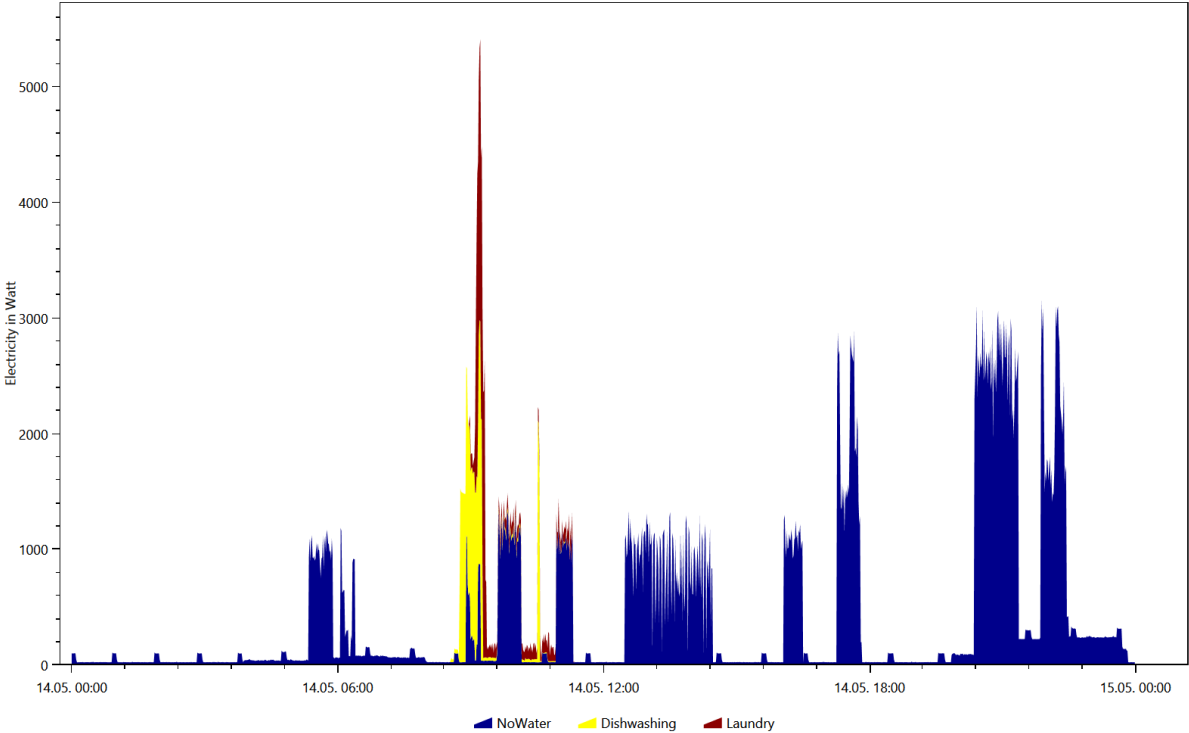
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.1.27



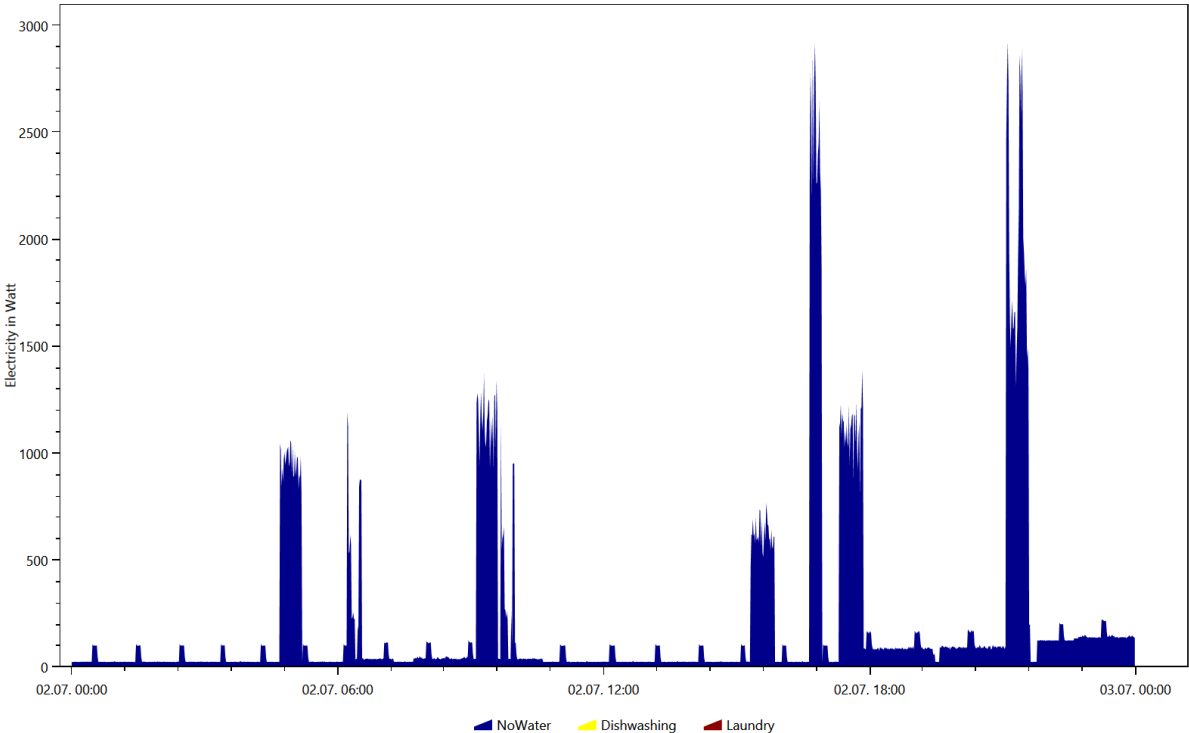
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.2.8



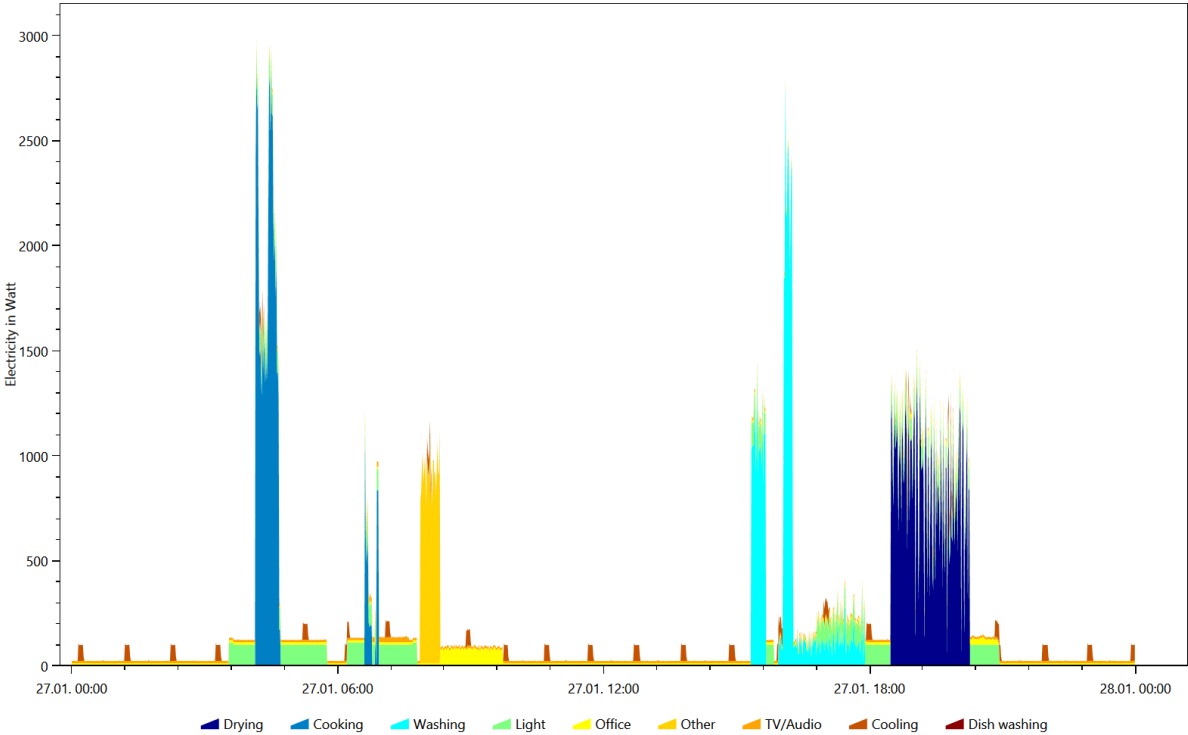
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.5.14



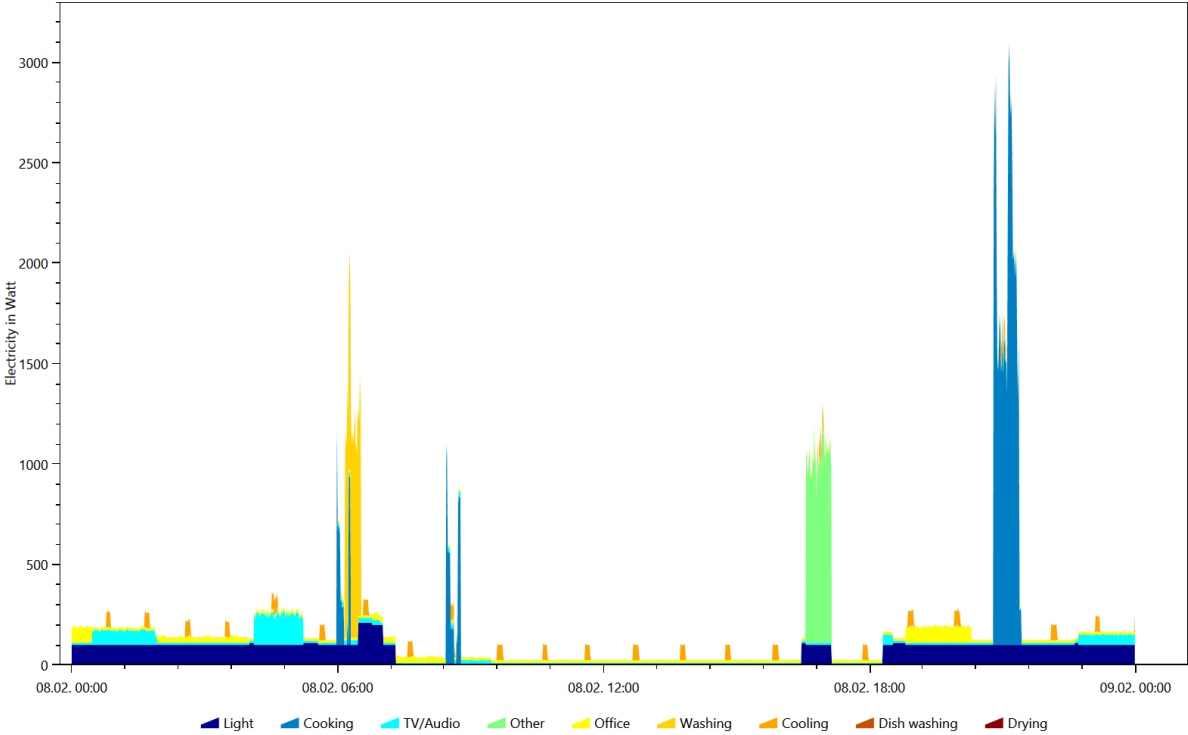
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.7.2



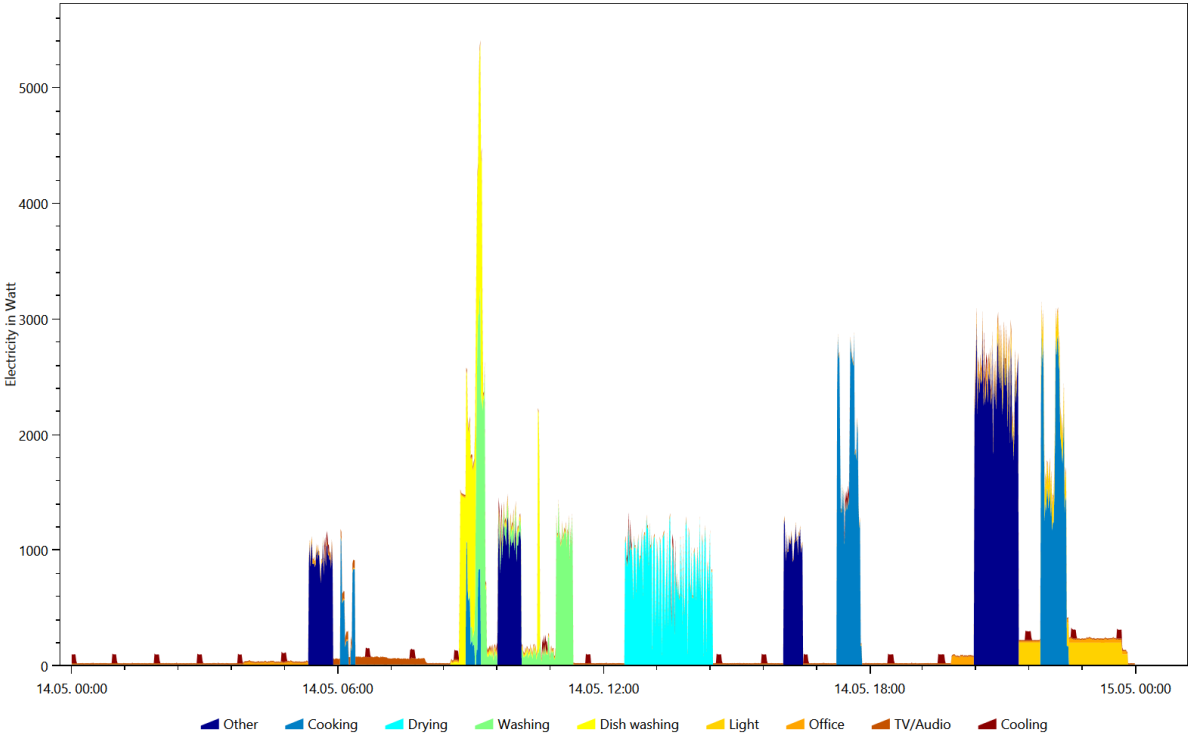
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.1.27



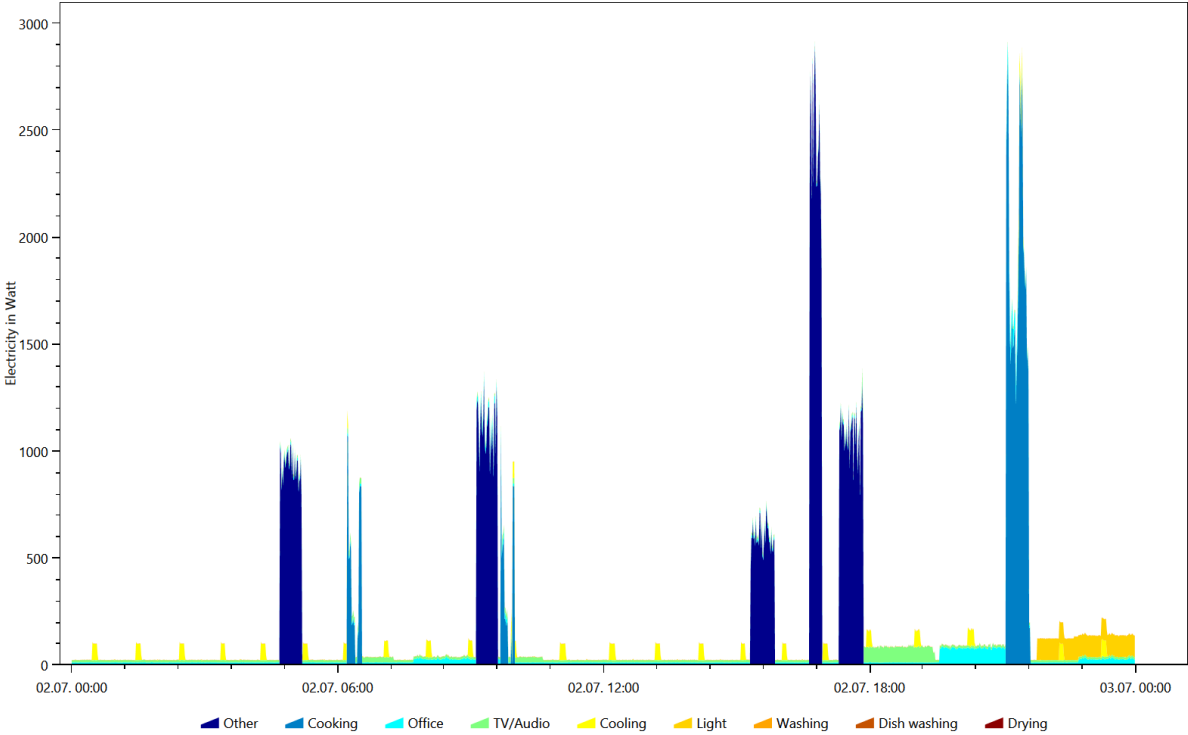
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.2.8



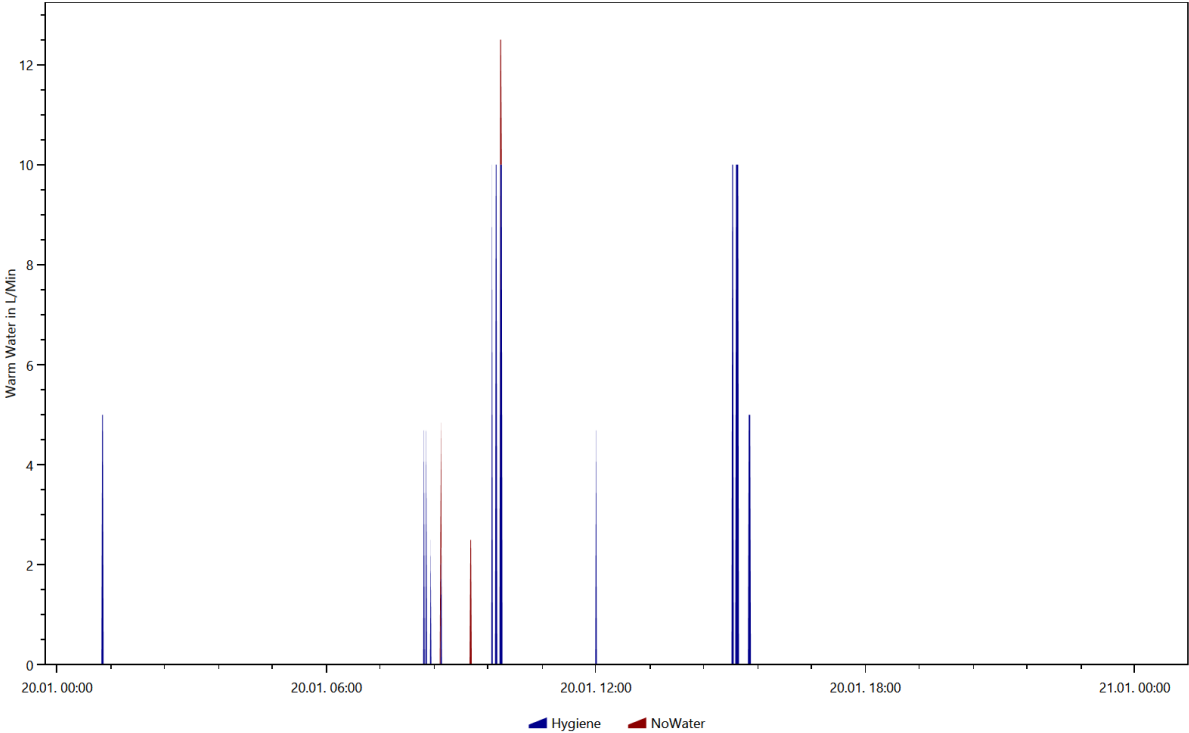
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.5.14



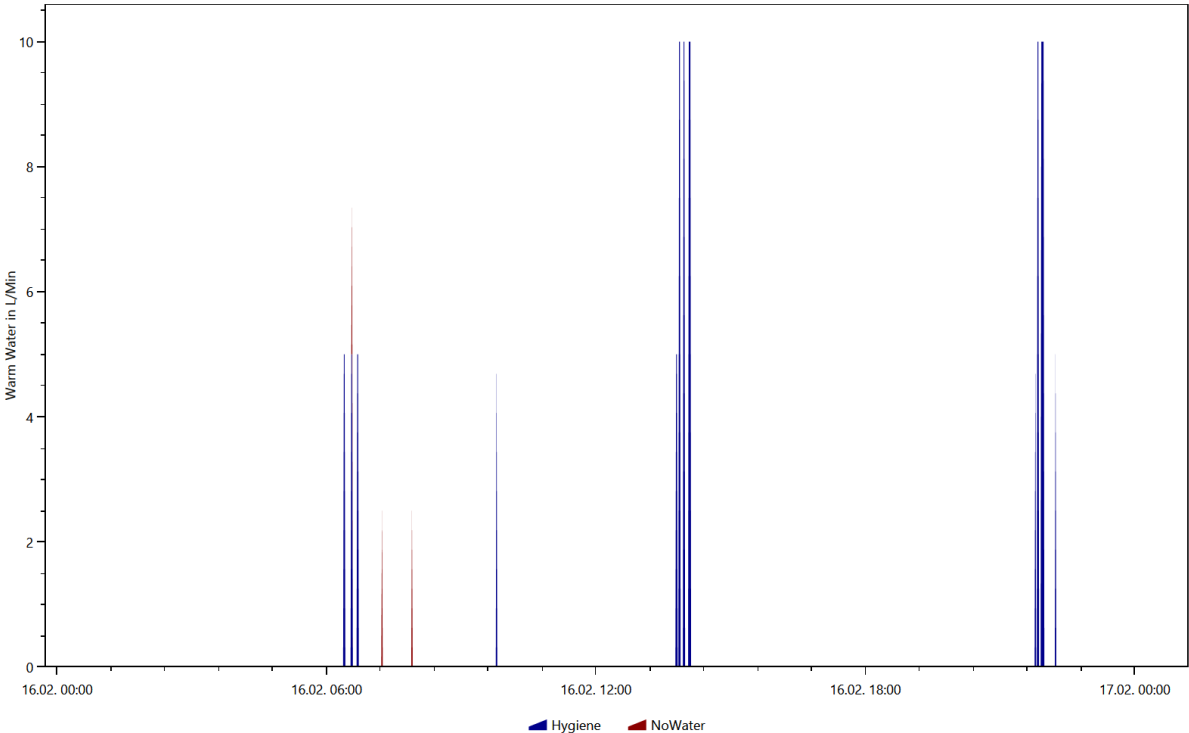
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.7.2



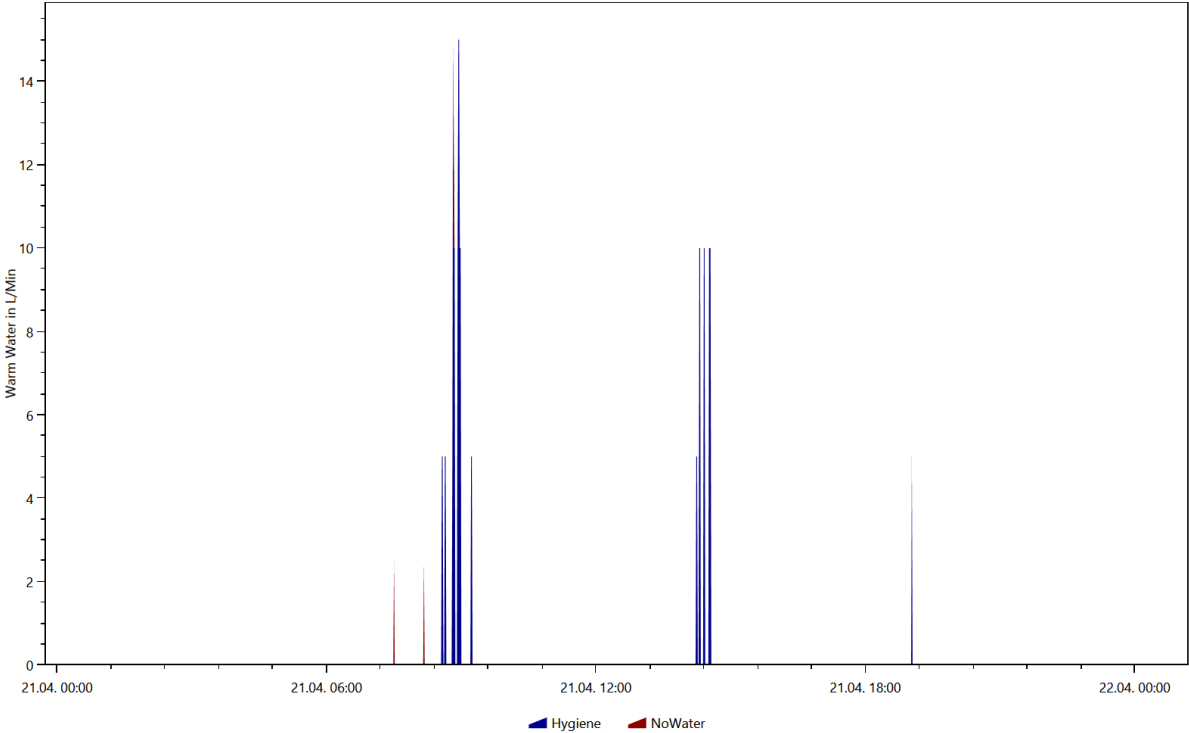
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.1.20



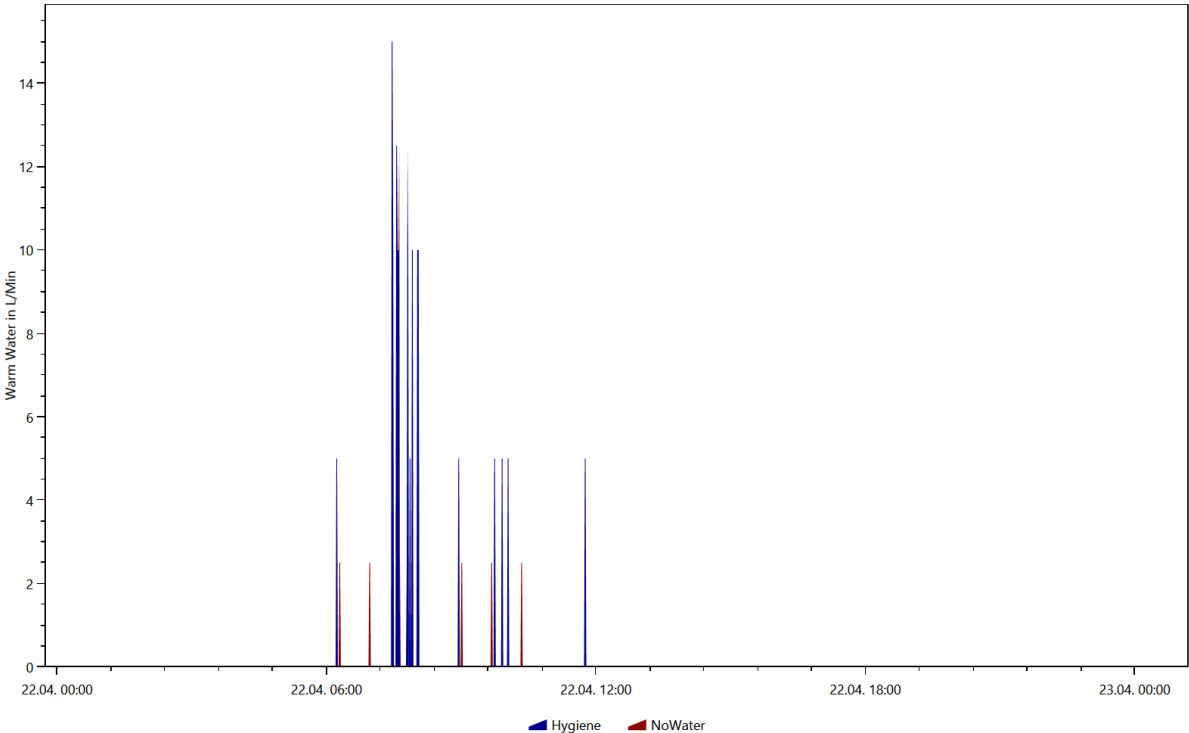
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.2.16



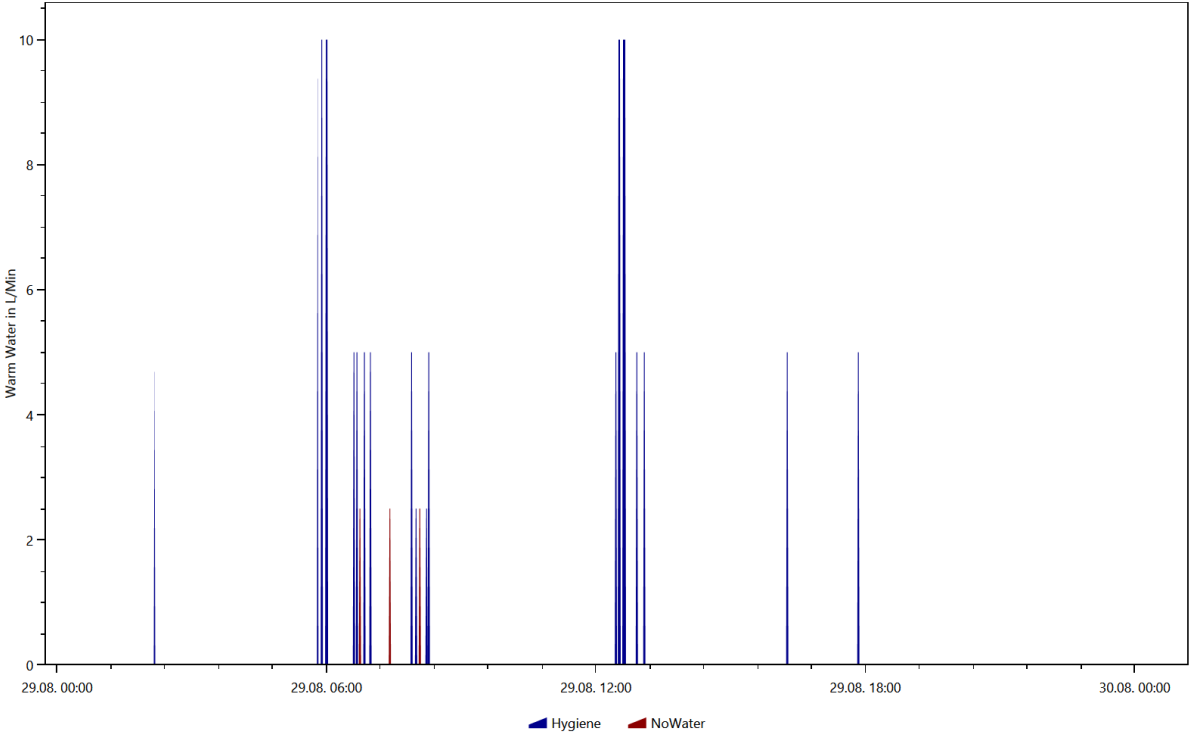
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.4.21



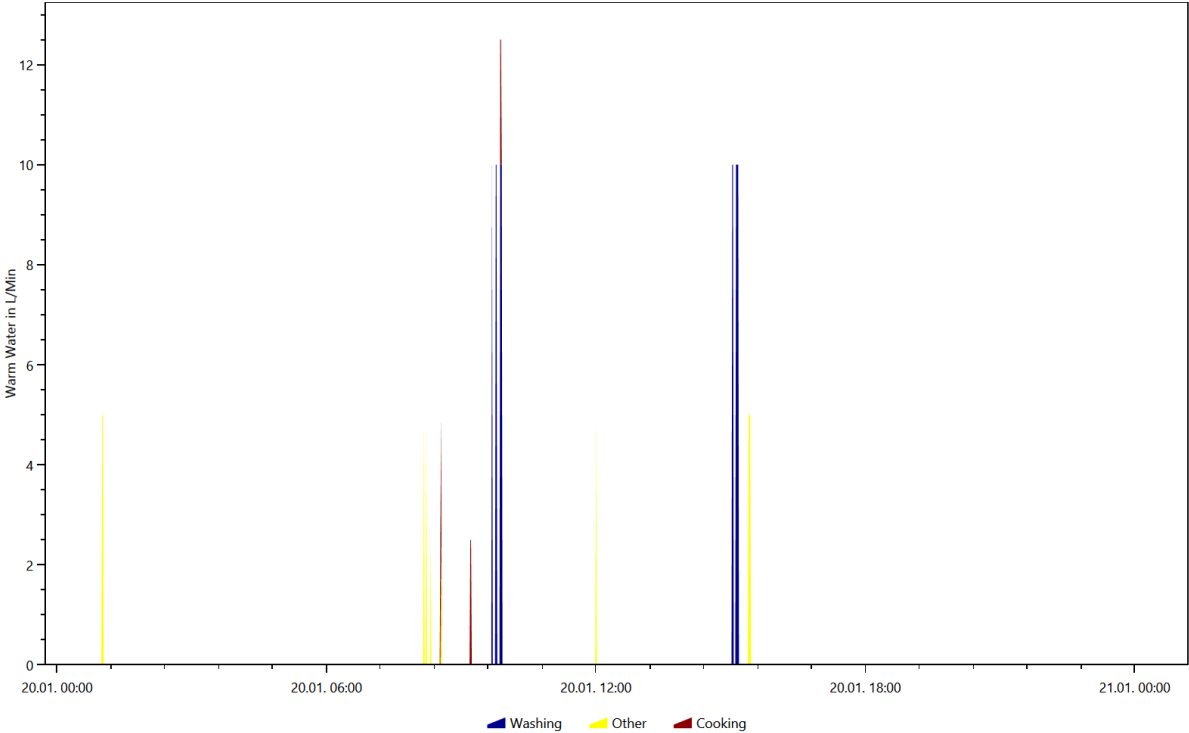
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.4.22



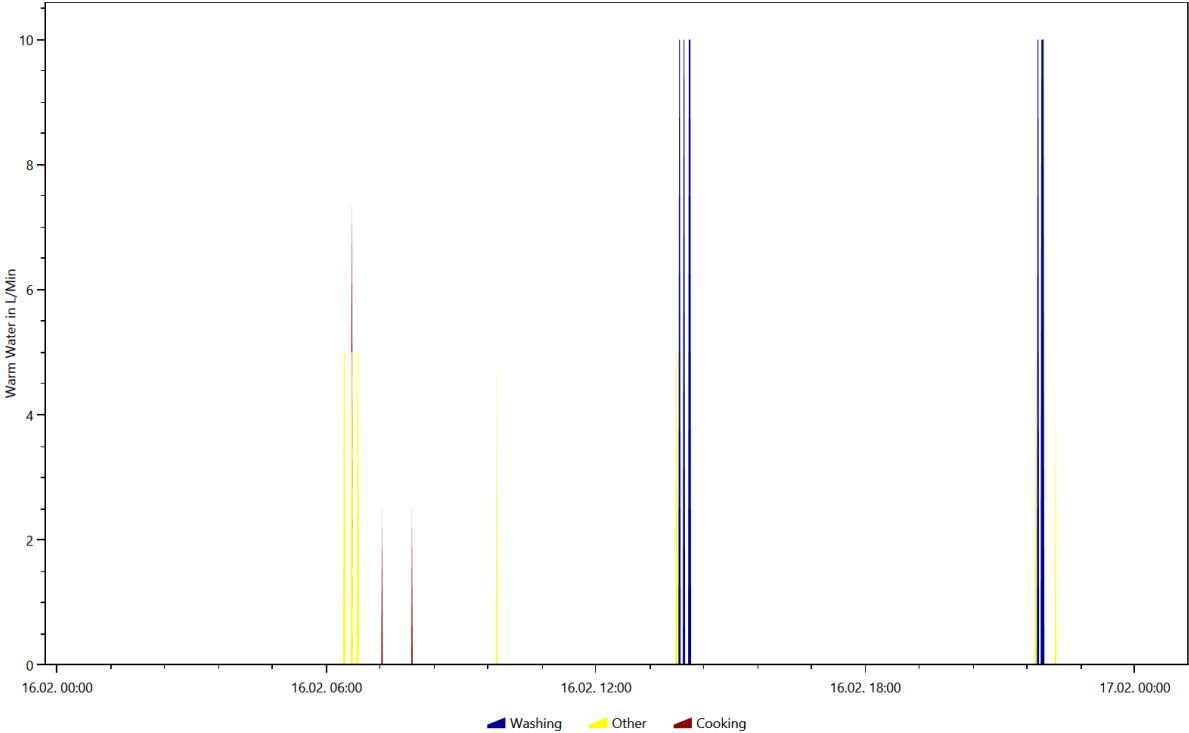
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.29



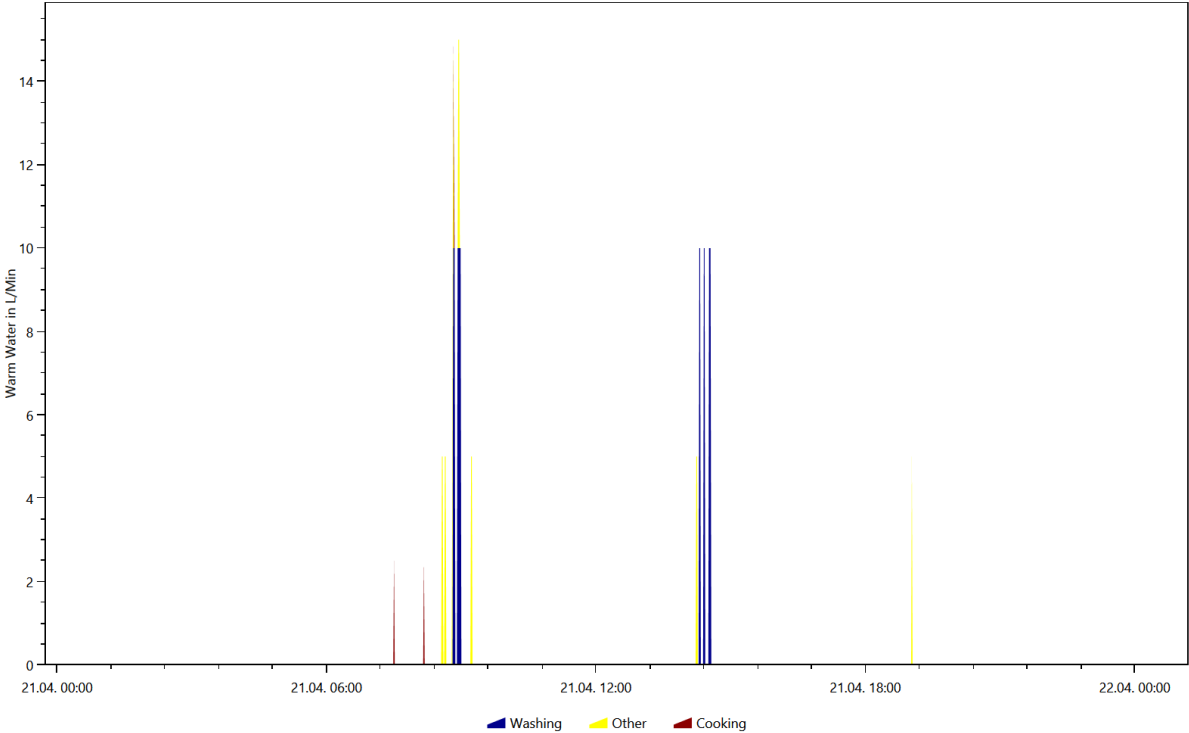
Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.1.20



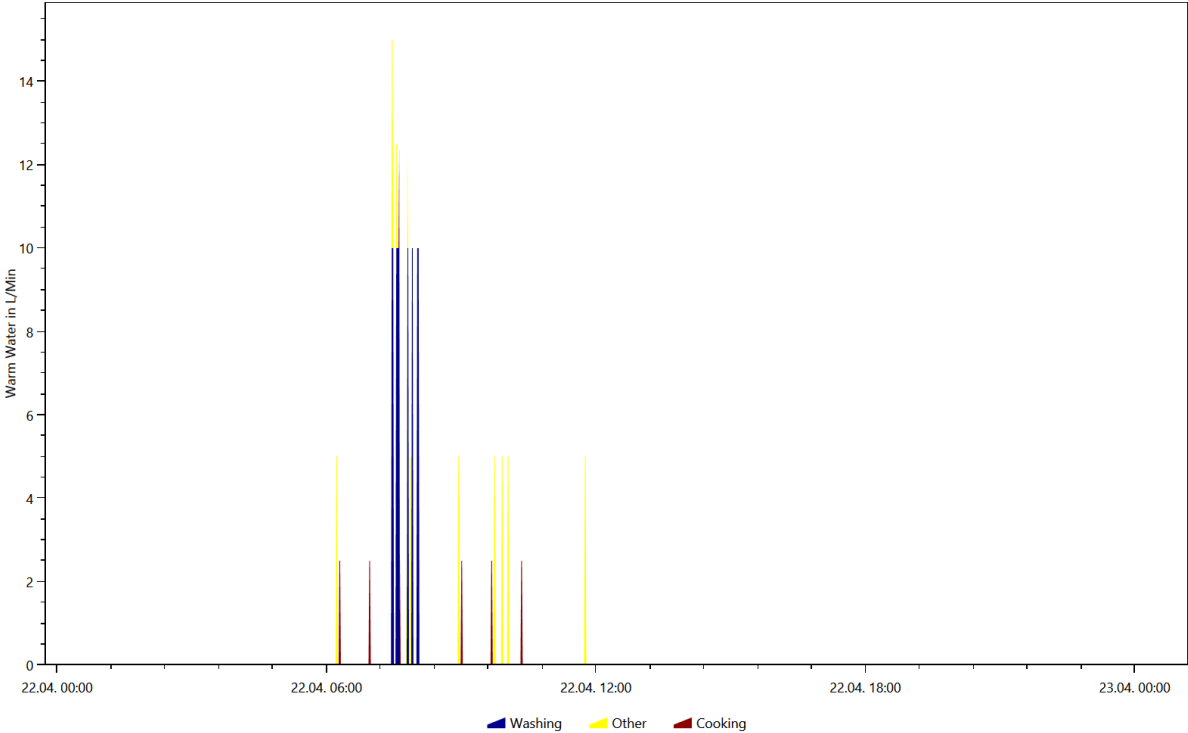
Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.2.16



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



Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.4.22

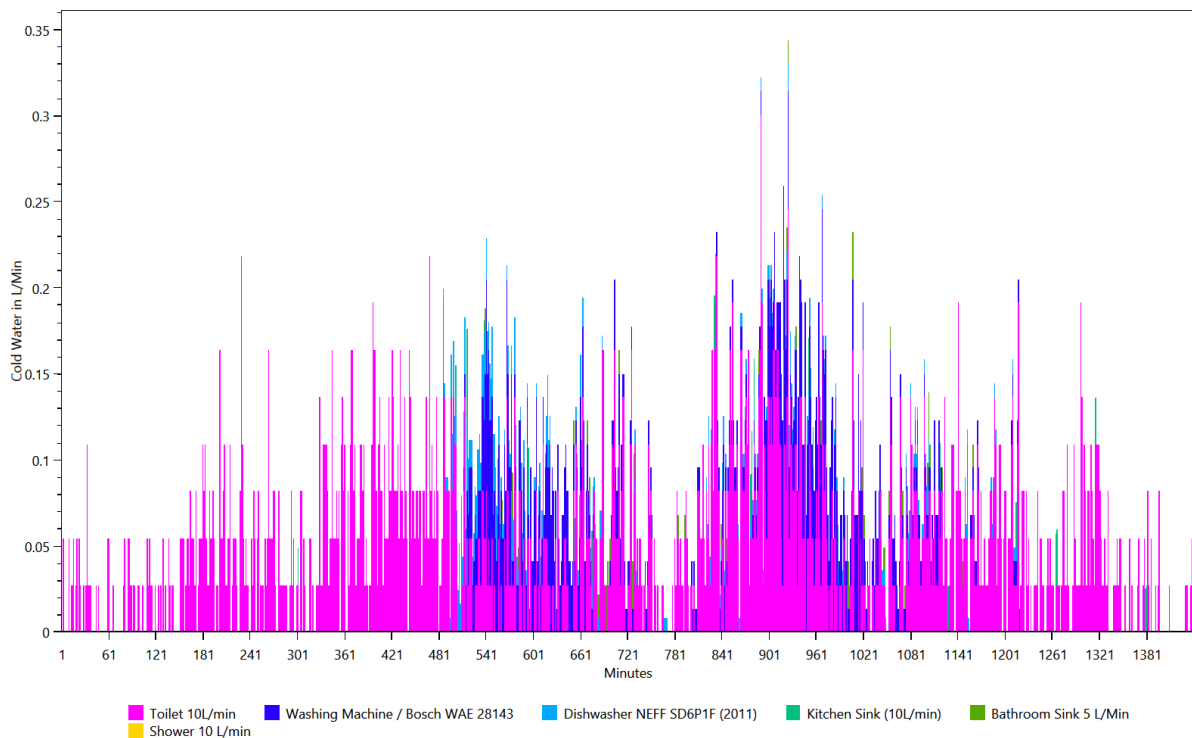


Overview of the time and power of the use per load type per device

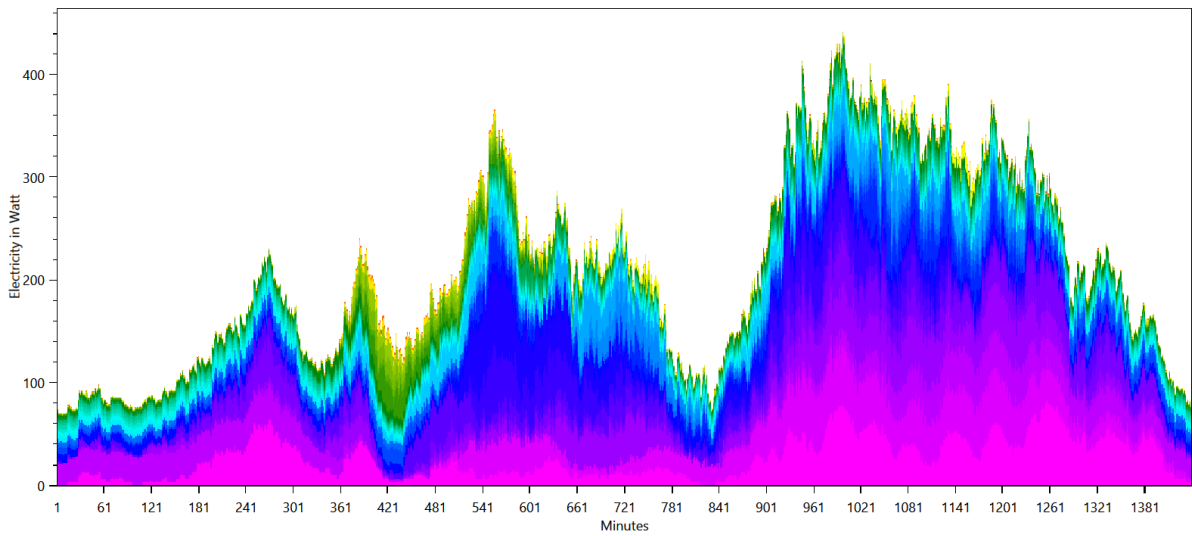
This is made from the files starting with: **TimeOfUseEnergyProfiles**

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

Cold Water

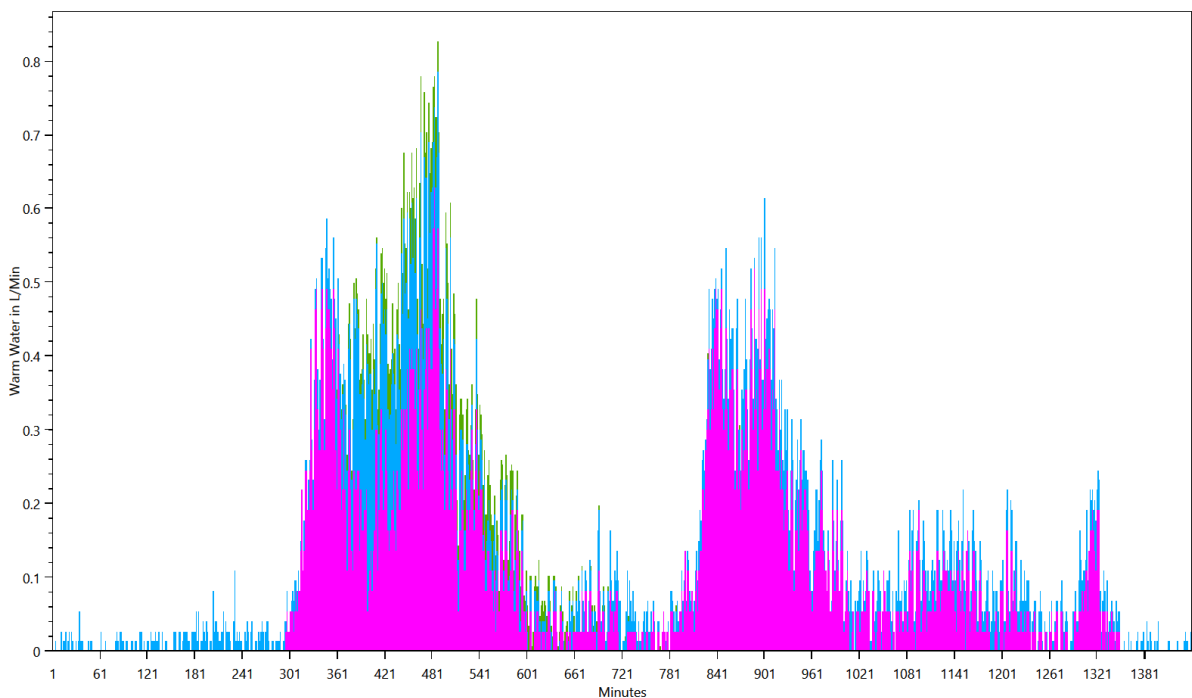


Electricity



- Kitchen Stove / Bauknecht Heko 750 PT Kitchen-stove right hind
- Single Stove Plate
- Miele DG 1450
- Laptop Sony Vaio SVE151G11M
- PC / Acer 8400
- PC Monitor / Fujitsu Siemens Scaleoview D19-1
- Egg Cooker / Russell Hobbs 14048-56 Stylo
- Nespresso Coffee Machine, Single Cup
- Electric Toothbrush Dondodent Professional Clean
- Bedroom Light (200W)
- Christopeit Treadmill TM 2 Pro
- Kitchen Light (100W)
- Microsoft Xbox 360
- Hedge Trimmer / Bosch AHS 550-24 ST
- Toaster Salco MT 400
- Electric Kettle / Petra WK288 1.5L
- Handmixer / Phillips Robust HR 1581
- Food Slicer / DOMO Schneidemaschine DO521S
- Washing Machine / Bosch WAE 28143
- Router O2 Box 6431
- TV Medion MD20123_DE_A
- SAT Receiver / Kathrein UFS913
- Kitchen radio / AEG KRC 4323 CD
- Electric Razor Braun Cruzer 5
- Bathroom Mirror Light 10 W (LED)
- Energy Saving Lamp / EL-REF 11 E27
- Living Room Light (100W)
- Dishwasher NEFF SD6P1F (2011)
- Atika LH 2500 G
- Hifi System / Sharp XL-HF300PH
- Bathroom Light (100W)
- Juicer / Moulinex Vitafruit
- Canister vacuum cleaner / Siemens VS 06 G 1831
- Steam Iron / Phillips GC 4410
- Siemens KI 20 LA 65 (A+)
- Hair Dryer Braun Silencio 1250
- CD/DVD Player / Philips DVDR 725 H

Warm Water



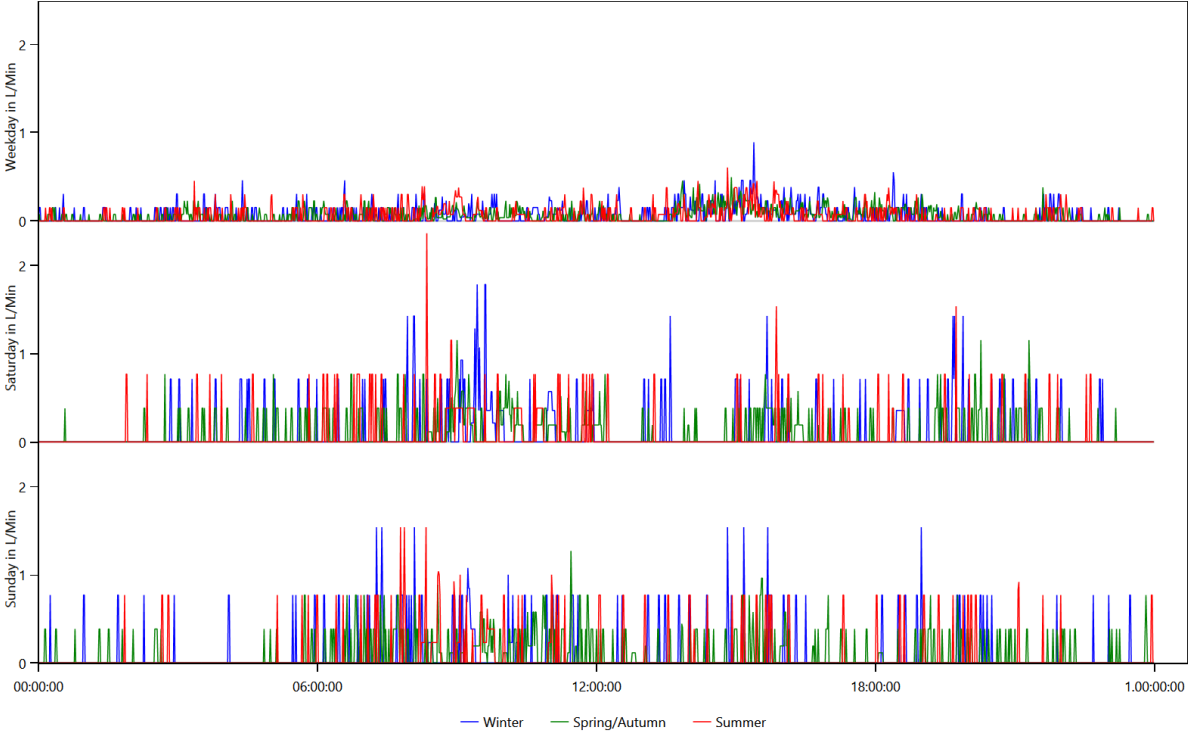
- Shower 10 L/min
- Bathroom Sink 5 L/Min
- Kitchen Sink (10L/min)

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

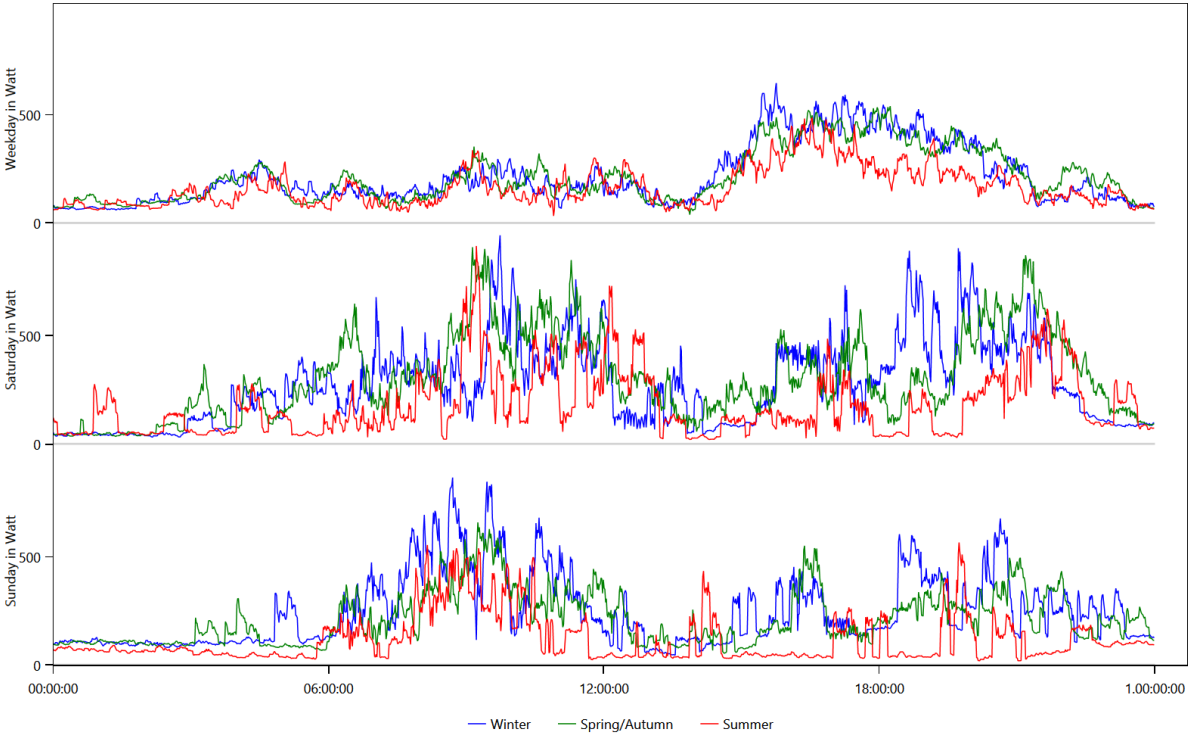
This is made from the files starting with: WeekdayProfiles

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

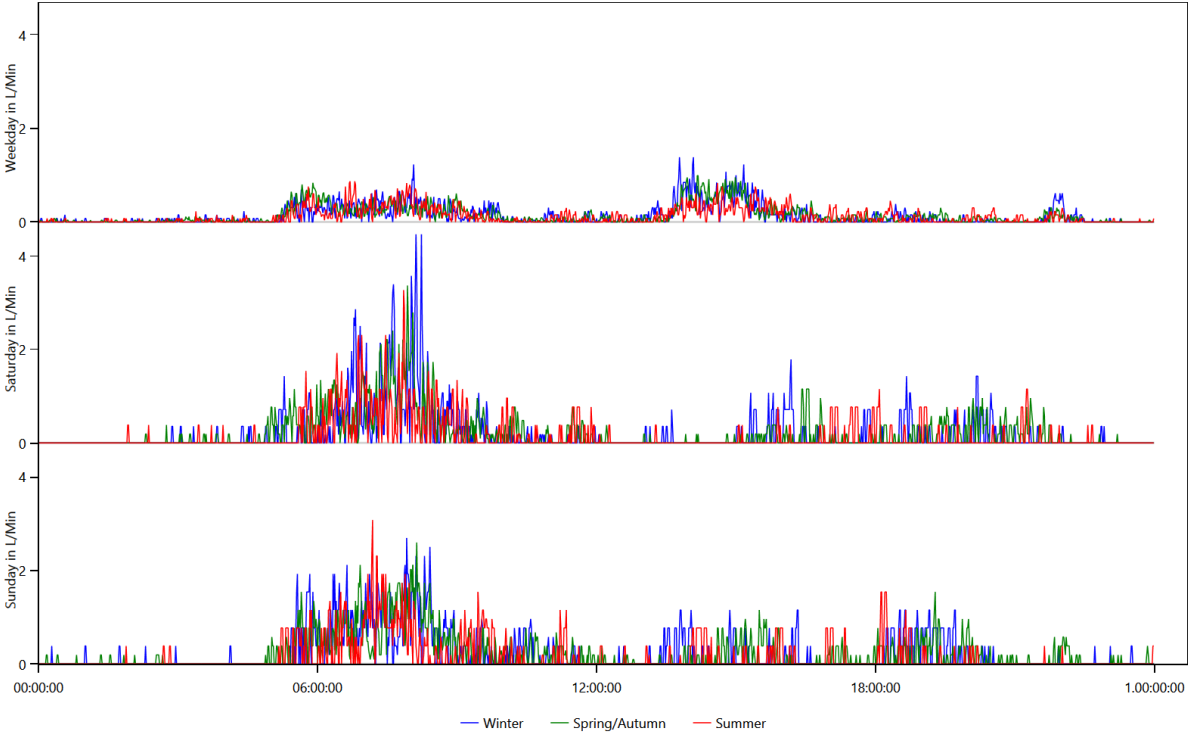
Cold Water



Electricity



Warm Water

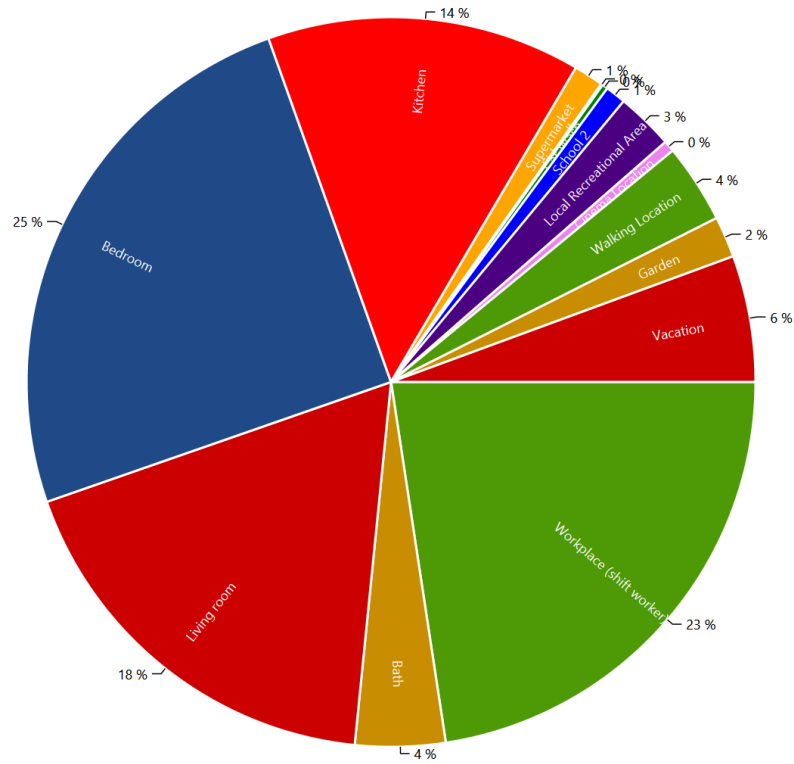


Location Distribution per Person

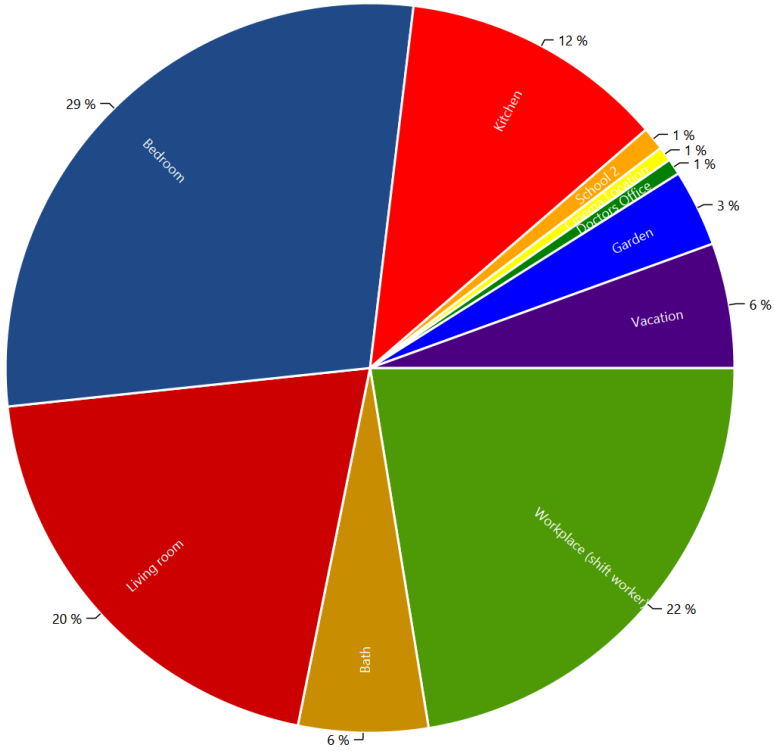
This is made from the files starting with: LocationStatistics

These charts show where the persons spend their time.

CHS12 Falk (31 Male)



CHS12 Regina (29 Female)



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

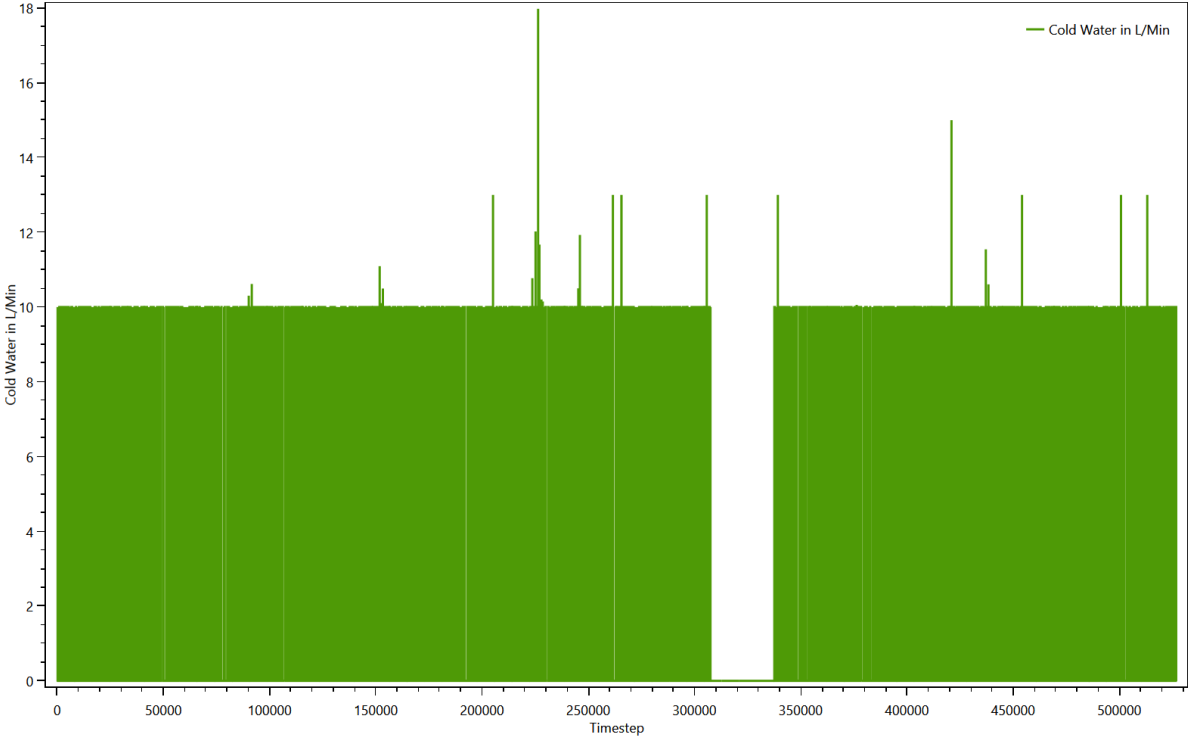
Time step;Calendertime;Person;Selected affordance;Affordance Category;Is Sick
0;01.01.2016 00:00;CHS12 Falk (31/Male);sleep bed 07 (08 h) (shift worker man);sleep;False;
0;01.01.2016 00:00;CHS12 Regina (29/Female);work as shift worker (woman);work;False;
174;01.01.2016 02:54;CHS12 Falk (31/Male);go to the toilet;hygiene;False;
179;01.01.2016 02:59;CHS12 Falk (31/Male);exercise for 30 min on the treadmill;sports;False;
215;01.01.2016 03:35;CHS12 Falk (31/Male);use the laptop for Internet, Movie, Music, News (2 h);Active Entertainment (Computer, Internet etc);False;
334;01.01.2016 05:34;CHS12 Falk (31/Male);work as shift worker (man);work;False;
369;01.01.2016 06:09;CHS12 Regina (29/Female);sleep bed 06 (08 h) (shift worker woman);sleep;False;
821;01.01.2016 13:41;CHS12 Regina (29/Female);go to the toilet;hygiene;False;
826;01.01.2016 13:46;CHS12 Regina (29/Female);take a shower with hair washing (women) (5 min hair drying);hygiene;False;
867;01.01.2016 14:27;CHS12 Falk (31/Male);go to the toilet;hygiene;False;
871;01.01.2016 14:31;CHS12 Falk (31/Male);take a shower (men);hygiene;False;
887;01.01.2016 14:47;CHS12 Falk (31/Male);cook together at all times;cooking;False;
898;01.01.2016 14:58;CHS12 Regina (29/Female);do laundry at 30°C (by variable);cleaning;False;
912;01.01.2016 15:12;CHS12 Regina (29/Female);cook together (all the time) (cook together at all times);cooking;False;
1006;01.01.2016 16:46;CHS12 Falk (31/Male);go shopping for food in the supermarket (1.5 h);shopping;False;
1006;01.01.2016 16:46;CHS12 Regina (29/Female);go to the toilet;hygiene;False;
1012;01.01.2016 16:52;CHS12 Regina (29/Female);take a nap;sleep;False;
1069;01.01.2016 17:49;CHS12 Regina (29/Female);run the dryer with wet laundry, only below 15°C (by variable);cleaning;False;
1087;01.01.2016 18:07;CHS12 Regina (29/Female);play board games (1 h);Offline Entertainment;False;

Sum Profiles

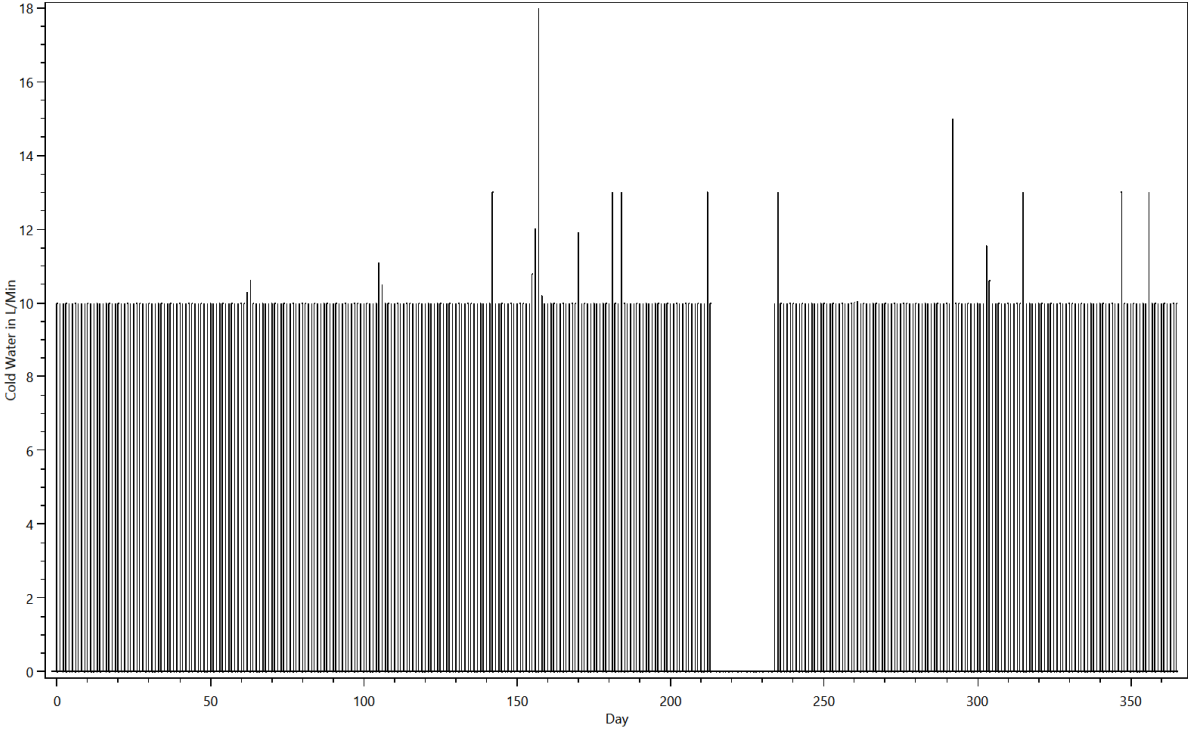
This is made from the files starting with: SumProfiles

This shows the energy use during the simulation.

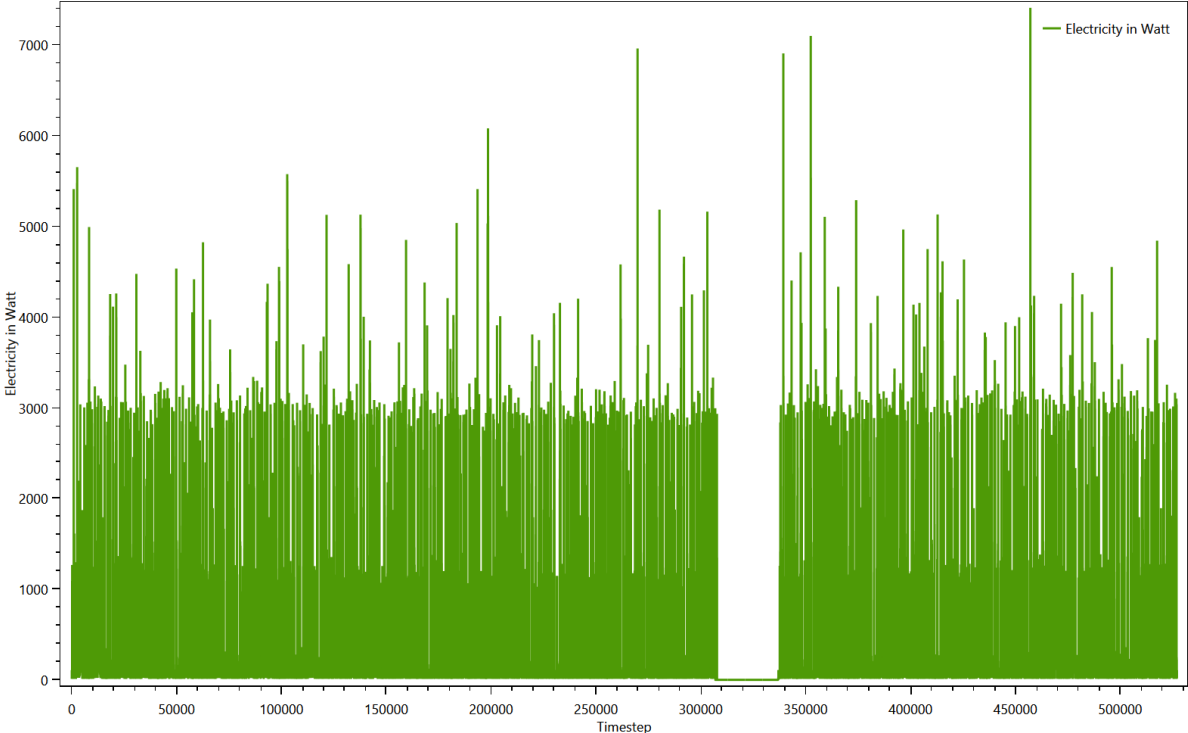
Summed up curve for Cold Water from SumProfiles.Cold Water.png



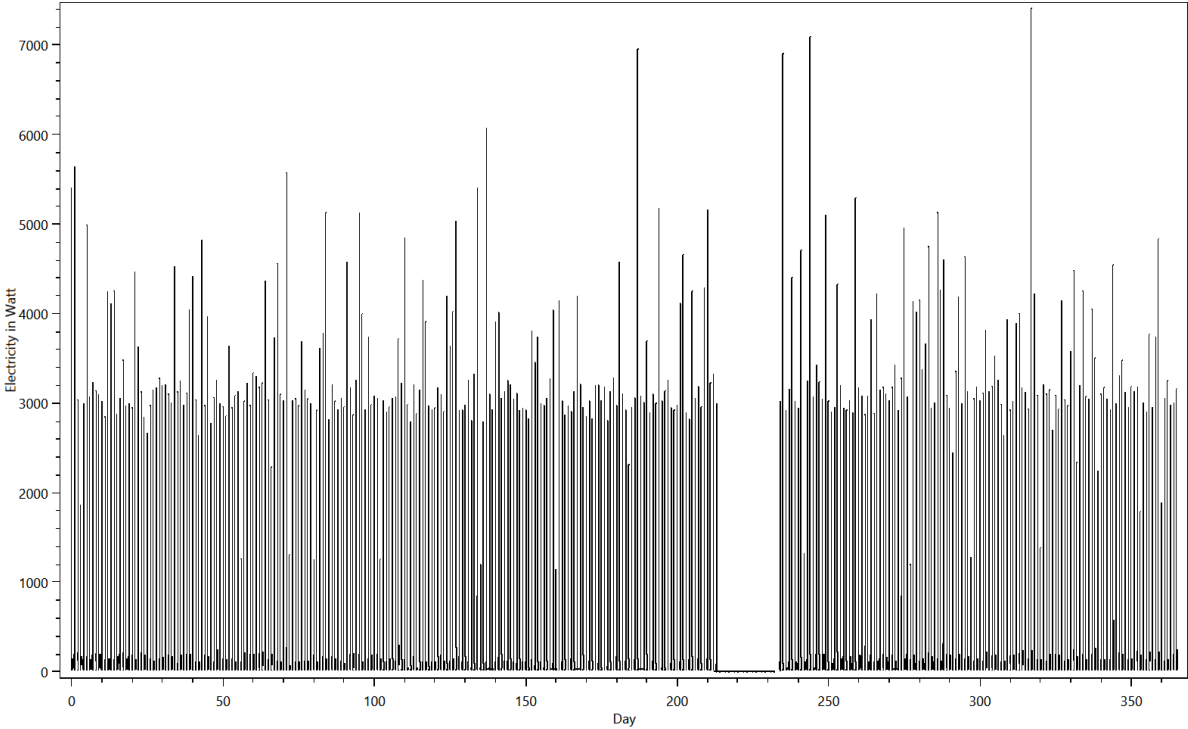
Summed up curve for Cold WaterMinMax from SumProfiles.Cold WaterMinMax.png



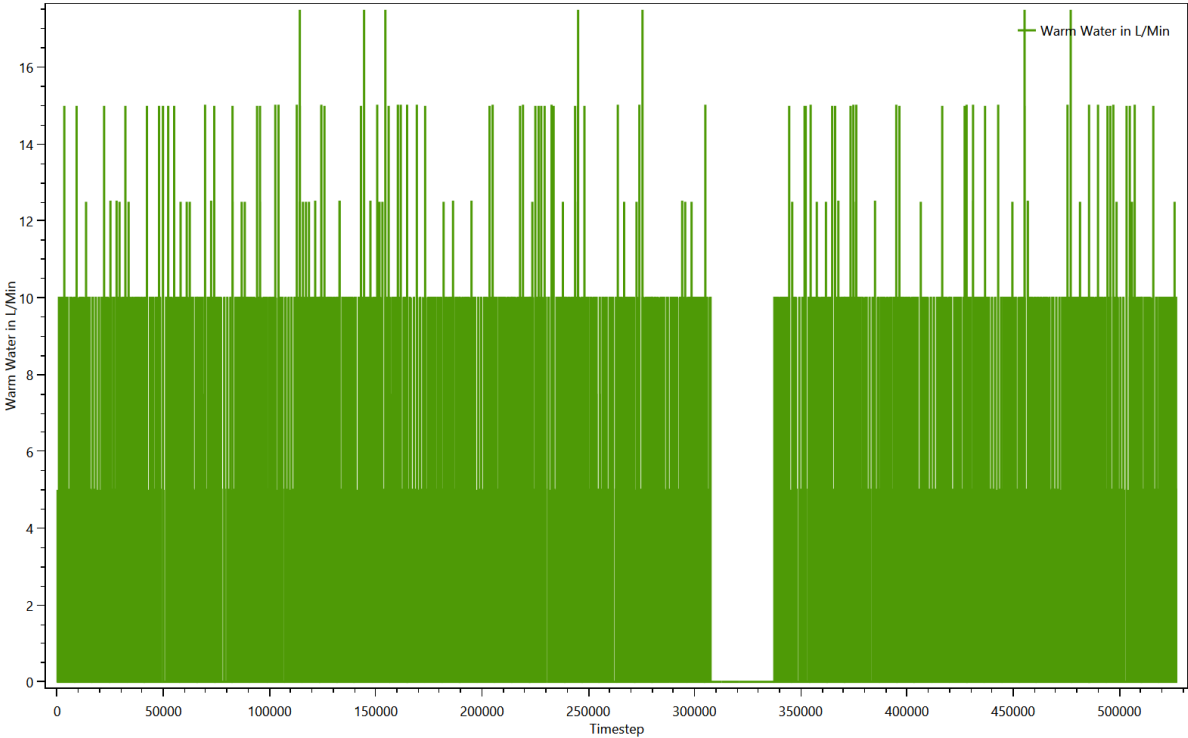
Summed up curve for Electricity from SumProfiles.Electricity.png



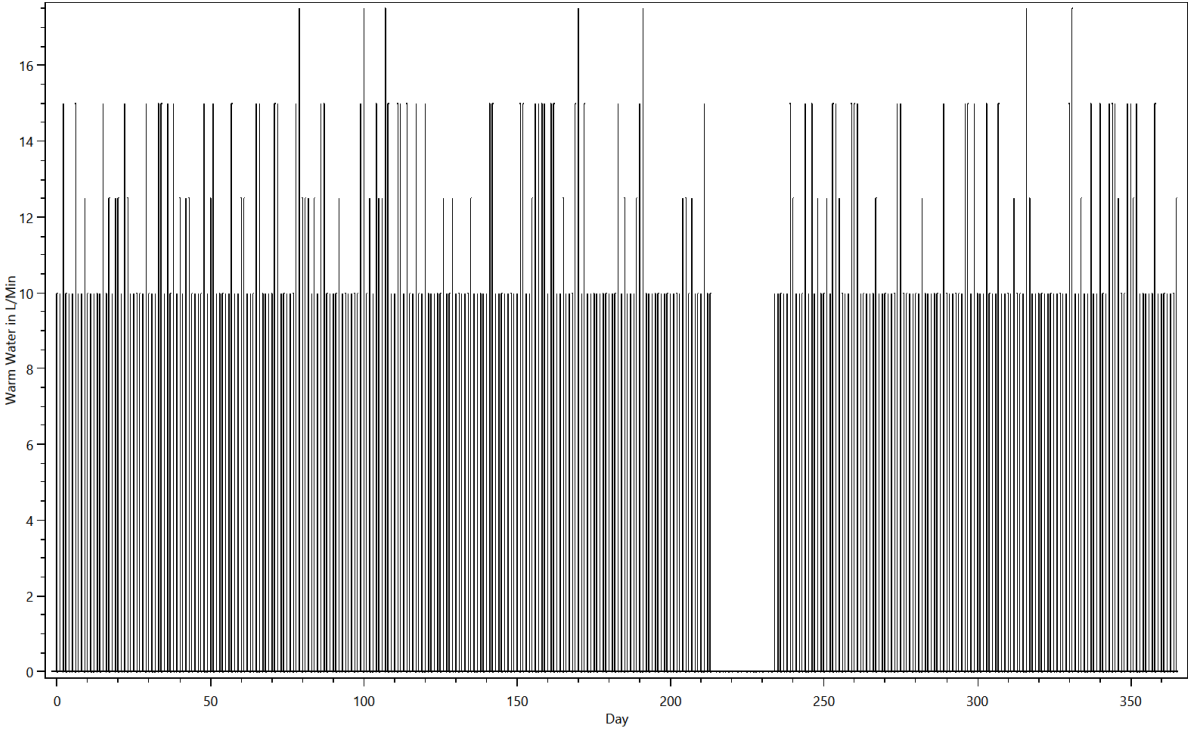
Summed up curve for ElectricityMinMax from SumProfiles.ElectricityMinMax..png



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



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



Time Profiles

This is made from the files starting with: Time Profiles

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

TimeProfiles.HH0.CHS12 Shiftworker Couple 0.txt

Device;Load Type;Profile;Number of Activations

Atika LH 2500 G;Electricity;0 h 15 min 100% [Synthetic];73

Bathroom Light (100W);Electricity;Bath - light [Synthetic for Light Device];1052

Bathroom Mirror Light 10 W (LED);Electricity;Bath - light [Synthetic for Light Device];1052

Bathroom Sink 5 L/Min;Cold Water;0 h 01 min 100% [Synthetic];47

Bathroom Sink 5 L/Min;Warm Water;0 h 01 min 100% [Synthetic];3021

Bathroom Sink 5 L/Min;Warm Water;0 h 01 min 50% [Synthetic];412

Bed 6 (shift worker woman);None;03 h 0 min 100 % [Synthetic];190

Bed 6 (shift worker woman);None;08 h 0 min 100% [Synthetic];284

Bed 7 (shift worker2);None;08 h 0 min 100% [Synthetic];306

Board Games;None;01 h 0 min 100% [Synthetic];164

CD/DVD Player / Philips DVDR 725 H;Electricity;01 h 30 min 100% [Synthetic];155

CD/DVD Player / Philips DVDR 725 H;Electricity;02 h 0 min 100% [Synthetic];146

CD/DVD Player / Philips DVDR 725 H;Electricity;Standby TV / Receiver 1 h 0 min 3% [Synthetic];8296

Canister vacuum cleaner / Siemens VS 06 G 1831;Electricity;0 h 30 min 100% [Synthetic];11

Christopeit Treadmill TM 2 Pro;Electricity;0 h 30 min 100% [Synthetic];227

Cinema;None;03 h 0 min 100 % [Synthetic];32

Cleanser;None;01 h 0 min 100% [Synthetic];84

Cloth Drying Rack;None;0 h 20 min 100% [Synthetic];25

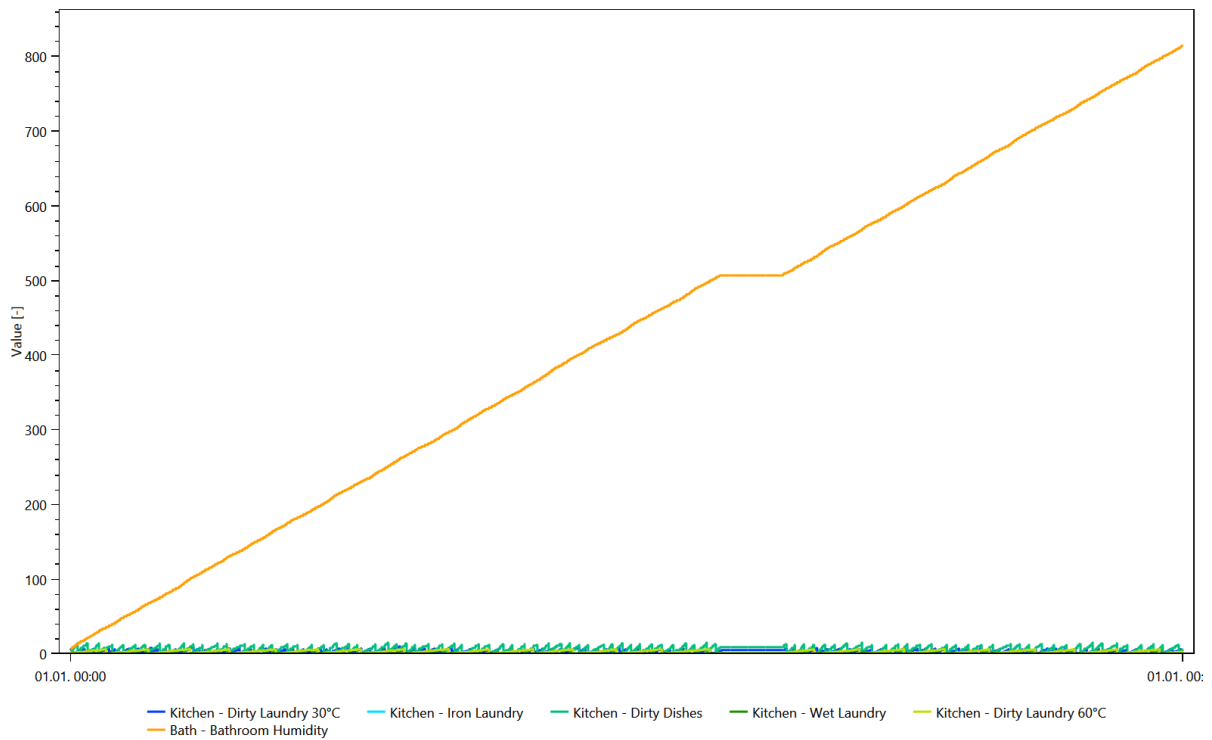
Couch;None;01 h 0 min 100% [Synthetic];365

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

