

Presence Simulator – Lights ON/OFF when AWAY

One of the first tasks to automate at home is a presence simulator, this is, to make people on the outside of your home to think there is someone at home, this can be done by turning ON/OFF lights randomly on different rooms, simulating people moving around the house and turning ON/OFF the lights. Another feature that can be implemented is to turn ON/OFF TV's or music for the same purpose.

This is an example of how to create a set of rules which will turn ON/OFF randomly the lights on different rooms, divided by zones, and will turn ON/OFF lights which can be “seen” on from the outside. See table below for an example of how zones are set up;

Group 1	Living Room	Hallways	NA
Group 2	Kitchen	Dining Room	Office
Group 3	TV Room	Main Bedroom	NA

There are different approaches to add this functionality to a Zipato smart home but this is the more “customizable” in my opinion, you can keep adding zones and adding or removing rooms to the zones to make this work.

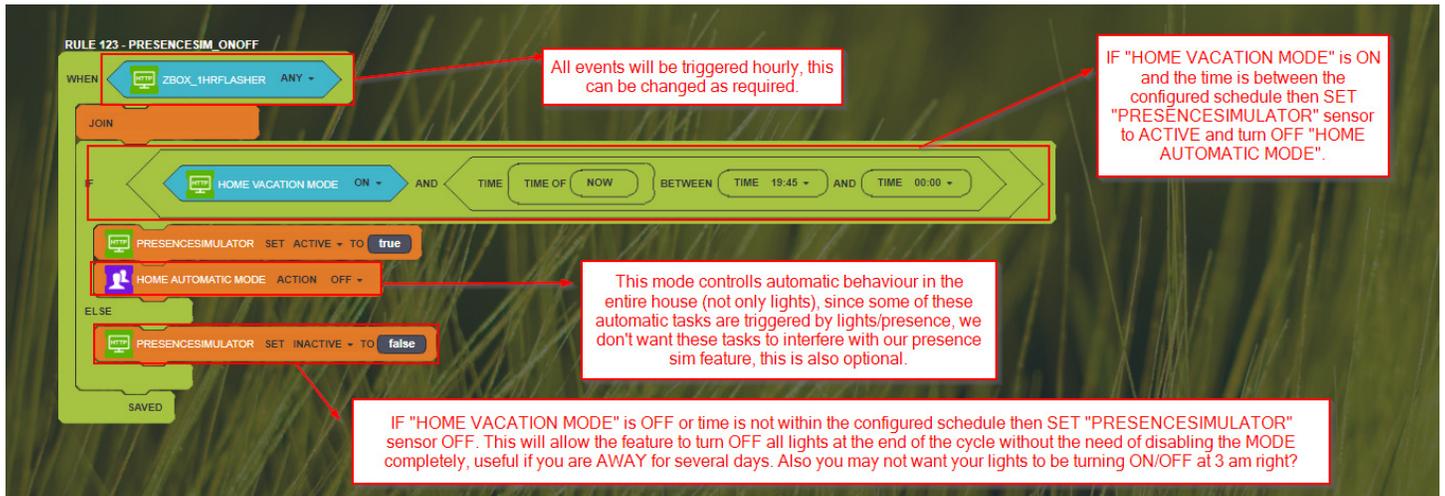
Also, I like to split tasks in different rules, shorter rules (shorter pieces of code) are easier to debug than one very big rule, so this is the main architecture of the rules;

1. First rule will detect if “Vacation Mode” or “Presence Sim Mode” has been activated and trigger the presence simulation only within certain hours, regardless when the Mode has been activated. This so you can turn this Mode ON and leave home and the lights will only turn ON/OFF when you configured them to.
2. Second rule will generate a random number every X number of minutes in order to TURN ON/OFF zones, only if it is dark AND/OF in configured schedule.
3. One rule per Zone to turn ON/OFF lights, music, or TV within that zone's room. In this case we will have three Zones.

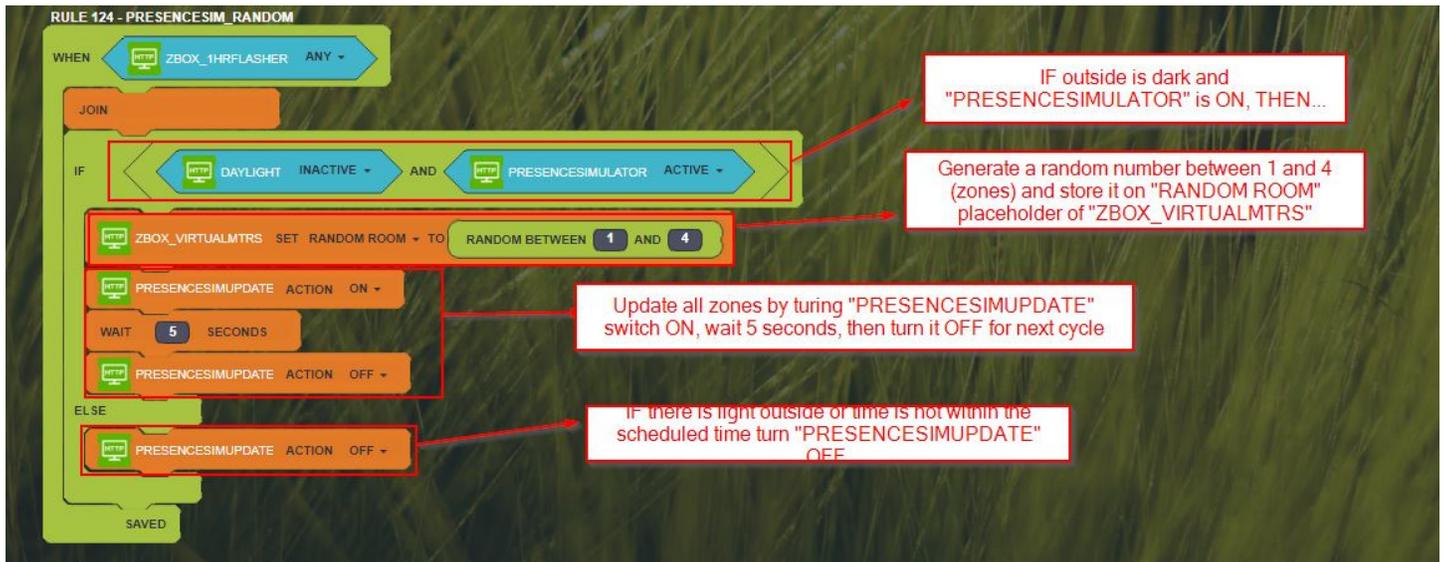
Explanation of virtual devices used in this example;

- “ZBOX_1HRFLASHER” is a virtual switch that changes state automatically (toggles) every hour, this is triggered by a scheduler on a different rule and it is used throughout the controller. This switch is created so you don't have multiple schedulers with the same function on different rules.
- “HOME VACATION MODE” is a virtual switch that the user turns ON or OFF based on his requirements of presence simulation, this TURNS ON/OFF the presence simulator as desired.
- “ZBOX_VIRTUALMTRS” is a virtual meter with 16 different “placeholders” or meters used throughout the controller, in this case we will use of these “placeholders” to store the randomly generated number to trigger the lights.
- “PRESENCESIMULATOR” this is a virtual switch that will automatically change state ON/OFF based on scheduled time to simulate presence and MODE enabled or disabled.
- “PRESENCESIMUPDATE” is a virtual sensor that will be automatically set to ACTIVE and then INACTIVE, to “update zone' status”, when it is ACTIVE, it will trigger ON/OFF events on different zones/rooms.
- “DAYLIGHT” is a virtual sensor that reflects the status of natural light (sunlight), this is done in a separate rule using the ASTRO function on a scheduler tied to a Virtual Weather Station, see rule guide “AstroBasedSchedulers.pdf” for more information.

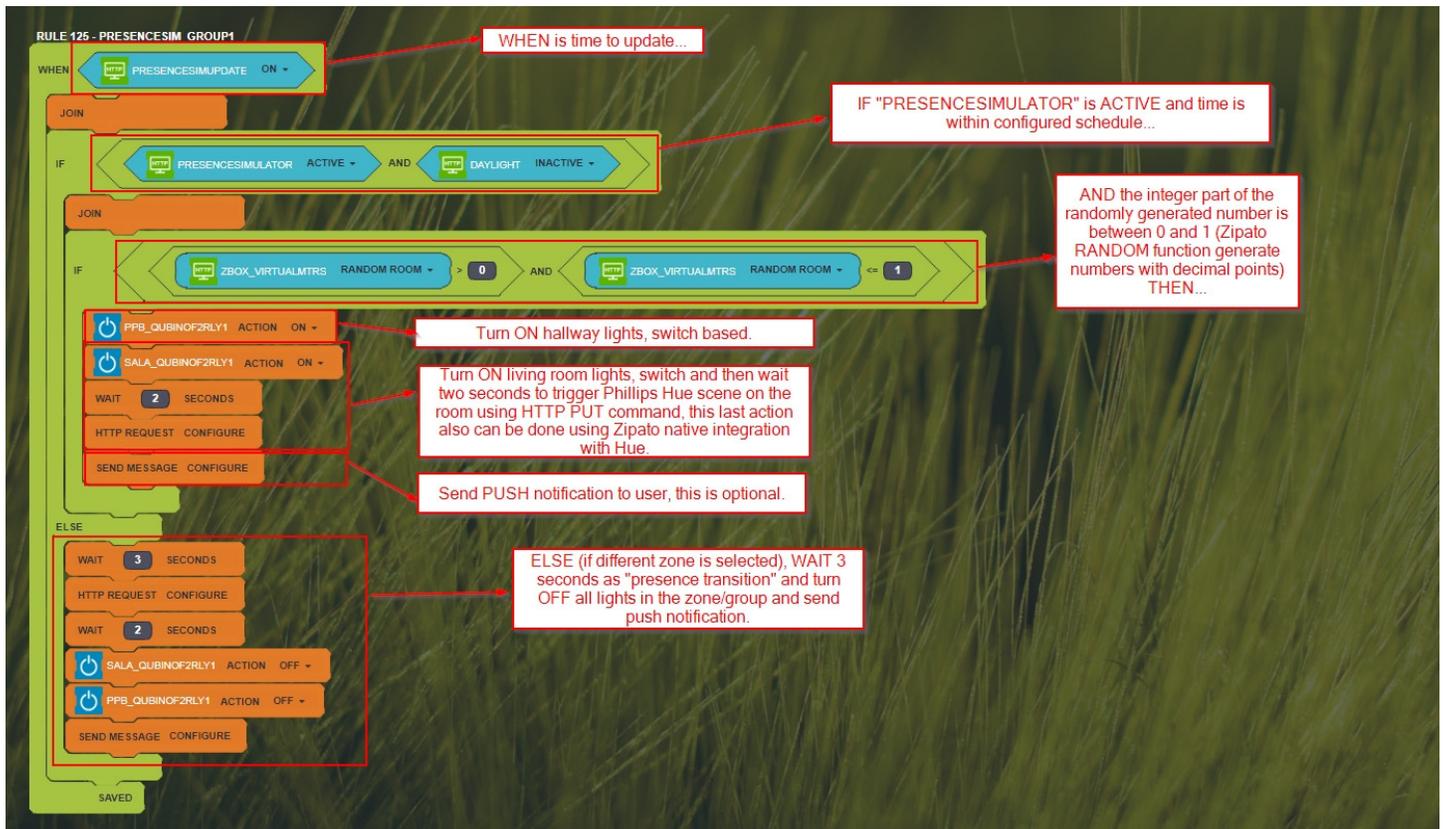
1st RULE – PRESENCE SIMULATOR ENABLE / DISABLE



2nd RULE – PRESENCE SIMULATOR RANDOM ZONE



3rd RULE – PRESENCE SIM FOR ZONE/GROUP 1



4th RULE – PRESENCE SIM FOR ZONE/GROUP 2



5th RULE – PRESENCE SIM FOR ZONE/GROUP 3

