## Plug Load Controls

### Author

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### Description

Plug loads represent a significant fraction of the energy consumption in commercial buildings. Turning plug loads off when not in use can save energy. This can be accomplished through a variety of methods depending on the plug load being controlled. Some options include occupancy sensors, scheduled outlets, advanced power strips, and equipment with built-in lower power modes.

### Modeler Description

Find all of the electric equipment schedules in the building. Reduce their fractional values by 10% during occupied hours (default 6pm-9am), and by 25% during unoccupied hours. These savings represent the application of a variety of control strategies.

### Use Case Types

Retrofit, New Construction

### Arguments

### Initial Condition Message

### Final Condition Message

The number of schedules that were edited to reflect the application of plug load controls.

### Not Applicable Messages

Not applicable if no electric equipment was found in the model.

### Warning Messages

### Information Messages

List each schedule that was modified.

### Error Messages

### Code Outline

* Find all electric equipment
* Get the fractional schedule and clone it
* Reduce the schedule by the specified percentage on the specified days
* Assign the cloned, reduced schedule to the equipment

### Tests

**This measure applies to:**

1. Large Office
2. Medium Office
3. Primary School
4. Secondary School
5. Large Hotel
6. Hospital
7. Small Office
8. Stand-Alone Retail
9. Strip Mall
10. Supermarket
11. Quick Service Restaurant
12. Full Service Restaurant
13. Small Hotel
14. Outpatient Healthcare
15. Warehouse
16. Midrise Apartment

### References