# HW2: Smart Grid Heuristic Evaluation *by Phu Nguyen - April 22, 2011*
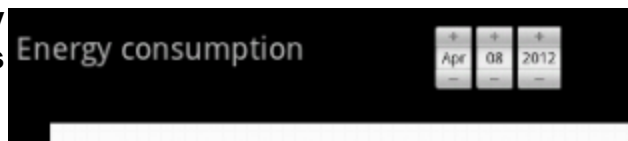
1. Major: **Hard to understand what the initial screen is -** *Learnability*

When the user first opens the application and sees the graph, the user might not know what data the graph is displaying. It is hard to see the axis labels and no title of the graph. The layout of the devices is a little confusing.

<u>Recommendations</u>: Make the labels and titles larger and more visible.

2. Minor: **The date changer buttons are slightly small and hard to realize that they are buttons** *- Fitt's Law*
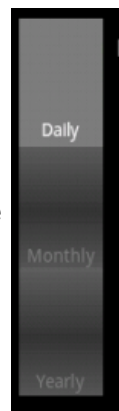
Because everything is in greyscale, it's hard to determine whether the buttons are clickable or "inactive". It might be able hard to press the correct button on a touch screen because they are a little small.

<u>Recommendations:</u> Place the date changer somewhere else where it can be larger (like to the side of the graph) or have it be a pop-up to change the date.

3. Good: **Nice order and placement of the "daily" etc. buttons** *- Visible Navigation*

It is very easy and quick to switch been daily, monthly, and yearly view and the ordering of the buttons are intuitive.

<u>Recommendations:</u> It might be even more noticeable if there are icons and/or colors to the buttons.

**4. Minor: "All Devices" is not initially open, so the user does not know which devices are currently displayed on the graph -** *Anticipation*

The user might want to know what the data they are looking at is for, and would be likely to anticipate to see what devices are currently being displayed on the graph.

Recommendations: Having the devices list being displayed initially can fix the issue.

**5. Minor: User has to continuously uncollapse the "All Devices" List -** *Consistency*

If User opens "All Devices" and switches from Daily to Monthly, "All Devices" is not open anymore. It happens for all three tabs (Daily, Monthly, Yearly).

Recommendations: Store whether or not the devices list is open, and keep all of the "All devices" list in the same state.

**6. Minor: "All Devices" had the collapse feature but the "Sorted Devices List" does not -** *Consistency*

The user is able to collapse the list of devices under "All Devices" but they cannot do so in "Sorted Devices List."

Recommendations: Possibly remove the collapse feature

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7. Minor: **Hard to read text for the inner Tabs  -** *Readability*



The text in the inner Tabs that says "All Devices" and "Sorted Devices List" is aligned directly to the bottom of the tab which makes it hard to read. It is also white on gray which doesn't have the best contrast.

Recommendations: Add padding to the bottom

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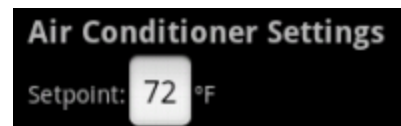8. Major: **Wrong Labels in Grid Tab**  - *Consistency*

In the Grid Section, the tabs under Daily states "Scheduled Sales" and "Sell Power" but under Monthly and Yearly, it states "Device Tree" and "Sorted Devices List."

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9. Major: **Hard to Understand that "Edit Settings" Means Controlling the Devices** - *Learnability*
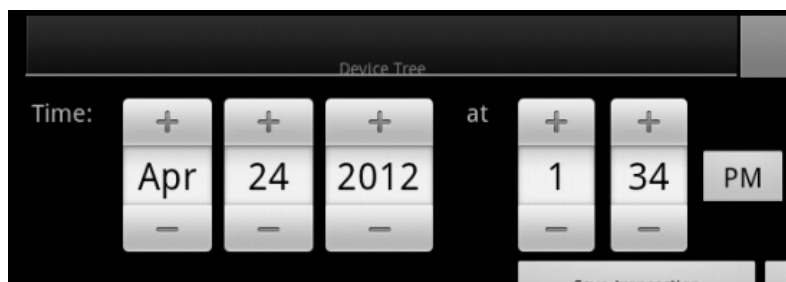
It might be just me, but I couldn't figure out how to control devices using the application easily. I took "Edit Settings" as in edit how the data of the device is displayed in the application, not the actual settings of the device in the real world.

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10. Cosmetics: **All of the Units in the Application** - *Learnability/Defaults*

Under the "Editing Settings" for a device, the temperature is displayed in Fahrenheit and not Celcius. Even though the Settings tab hasn't been implemented, it might be nice for the user to be able to choose the units they want to use.



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11. Good: **Consistent Date/Time Picker in the Sell Power Sections** - *Consistency*

I like that you used the Default Android Date Picker for all of the date picking tools in the applications. It makes it very intuitive to learn and use.
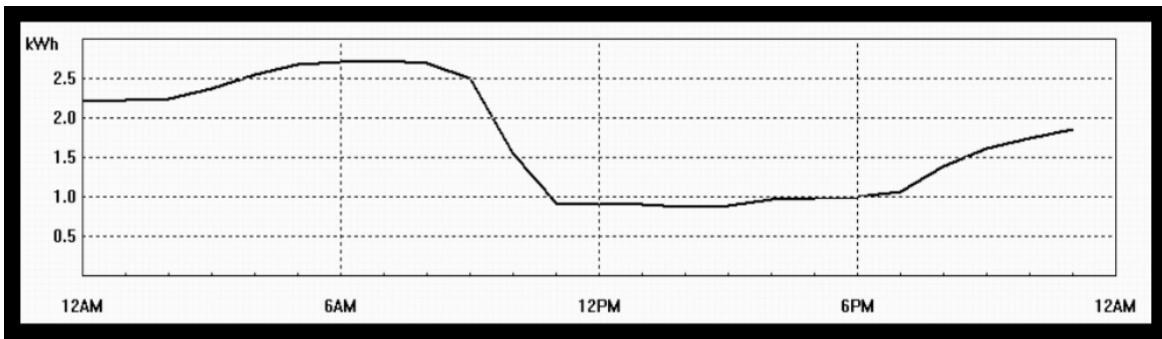
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12. Major: **No Error Prevention for "Edit Settings"** - *Protecting User's Work*

It is very easy to edit the settings of a device such as the temperature of the air conditioner. But if the user changes it dramatically by accident, it is hard to undo (especially if the user doesn't know he made the error).

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13. Major: **User Cannot See the Current Settings of Devices Easily** - *Fitt's Law/Efficiency*

The user is able to editing the settings of the device, but in order to see the current settings of a device, they must click on "edit settings" and can only see the current settings of a single device at once.

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14. Minor: **Hard to See the Exact Amounts at a Particular Time Using the Graph** - *Efficiency/Readability*



If the user wanted to get the exact amount of power at a specific time (like 6AM), they have to estimate using the y-axis.

Recommendation: It would be cool if the user hovered their finger over a part of the graph, that a popup would appear that displays the y-axis data for that point.

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15. Minor: **Can't Sort "Scheduled Sales" List under Grid** - *Consistency/Efficiency*



The "Sorted Devices List" can be sorted by columns, but the "Scheduled Sales" cannot be. It

might be more efficient for the user to be able to do so (especially by amount, price, or date).

## Conclusion

Overall, the application looks great and I'm looking forward to this application once all of the small bugs have been fixed and more functionality has been implemented.