Disaggregation of Household Energy Consumption into Individual Appliances

Michael Shell
School of Electrical and
Computer Engineering
Georgia Institute of Technology
Atlanta, Georgia 30332–0250
Email: http://www.michaelshell.org/contact.html

Homer Simpson
Twentieth Century Fox
Springfield, USA
Email: homer@thesimpsons.com

James Kirk
and Montgomery Scott
Starfleet Academy
San Francisco, California 96678-2391
Telephone: (800) 555–1212
Fax: (888) 555–1212

Abstract—Even with advances in smart grid technology and a growing demand for cost-effective energy consumption, detailed information about energy usage is often not available for residential electricity consumers. One reason is that energy usage is typically monitored at single point by the utility, only providing information on the aggregate power consumption. In this paper, we attempt to disaggregate the energy usage data into specific appliances from single-point sensing measurements. Our method involves extracting events from the time-series data to obtain relevant features. We focus on two feature sets: low frequency and high frequency. For each set, we create an event detection algorithm for feature extraction. We present the results of our approach on a publicly available dataset.

I. INTRODUCTION

In this section, we provide the motivation and a brief description of the project. A short discussion of related work in this area, including the methodology of previous competition winners is also provided. This is followed by an overview of our approach, description of the raw data, and evaluation method.

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II. CONCLUSION

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REFERENCES

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