Design and Implementation of a Framework for Efficient and Programmable Sensor Networks

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Outline

- Introduction
- Architecture
- Implementation
- Conclusion
Introduction

- SensorWare.
  - Provides a powerful language model.
  - Multiple users can use the WASN concurrently.
- Protability.
Introduction

- Proactive computing
  - A node’s actions are affected by physical stimuli detected by the node itself or nearby nodes.
Architecture

Provides all the standard functions and services of a multi-threaded environment.

Uses those functions and services offered by the OS to provide the runtime environment.

Can be solutions to generic sensor node problem. (location discovery)

Provides all the standard functions and services of a multi-threaded environment.
Architecture

- Two things comprise SensorWare
  - The language
    - Tcl
  - The supporting run-time environment.

Figure 3: The language parts in SensorWare
Architecture

- The general programming model

![Diagram](image)

*Figure 4: The programming model*
The run-time environment

It initiates a new thread running a script interpreter for the new script.

Make sure the scripts stay under their resource contract.
Architecture
Architecture

- Portability and expandability of SensorWare
  - Capabilities variability.
  - HW/SW variability.