Network Management Project

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1 Task I

Listing 1: inspired by [1]

```
messages:
(new, n)
(fail, n)
(update, n; l; p; a)
(localvar, x)

procedure GAP( )
    T := empty table;
    if v = root then
        addEntry(root, parent, -1, undef);
        addEntry(root, self, 0, undef);
    else
        addEntry(v, self, undef, undef);
    end if
    vector := updateVector();
    send (update, v; vector) to all neighbors;
    A.initiate();
    while true do
        read message;
        switch (message)
            case (new, from):
                addEntry(from, peer, undef, undef);
                send (update, v; vector) to from;
            case (fail, from):
                removeEntry(from);
            case (localvar, x):
                empty;
            case (update, from; level; parent; aggregate):
                updateEntry(from; level; parent; aggregate);
        end switch
        restoreTableInvariant();
        A.aggregate(); if (v =root) then A.global();
        newvector := updateVector();
        if newvector 6 = vector then
            send (update, v; newvector) to all neighbors;
            vector := newvector;
        end if
    end while
    end procedure
```

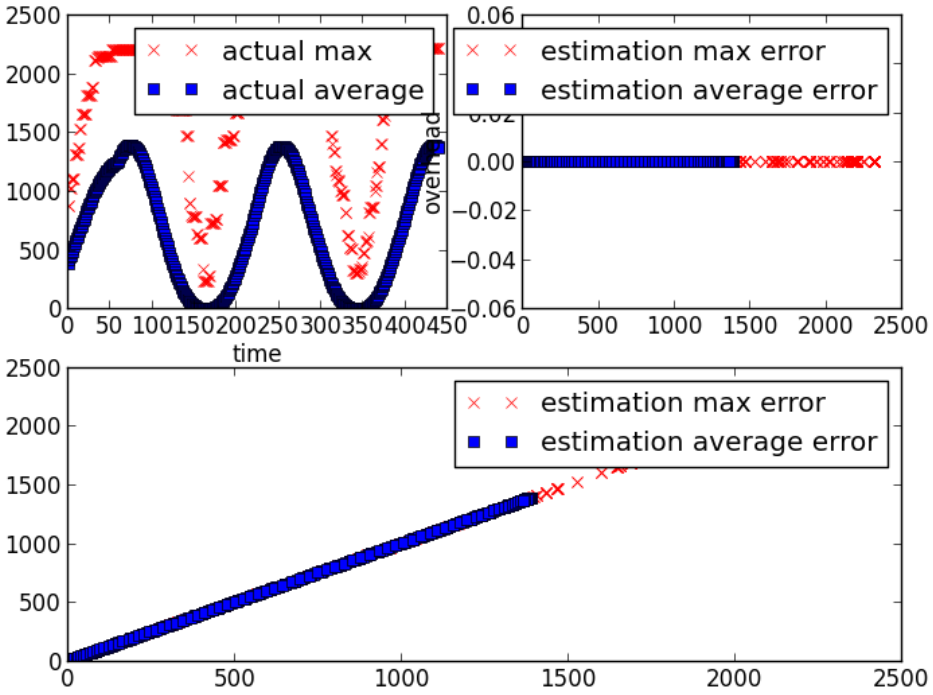

Abbildung 1: Required plots

- compare performance for R_1, R_2
  - time series of f (t) and f(t) for r = { 0.2, 0.4, 0.8 } amd $\{R_1, R_2\}$ from the first 5 min
  - trade off plot for R_1, R_2
  - density plot for r = { 0.2, 0.4, 0.8 } and $\{R_1, R_2\}$

2 Task II

- pseudo code!
- implementation details
- compare performance for R_1, R_2
  - time series of f (t) and f(t) for r = { 0.2, 0.1, 0.05, 0.025, } amd $\{R_1, R_2\}$ from the first 5 min
  - trade off plot for R_1, R_2

  - density plot for r = { 0.1, 0.05, 0.025 } and $\{R_1, R_2\}$

3 Task III

- pseudo code!
- implementation details
- compare performance for R_1, R_2
  - time series of f (t) and f(t) for r = { 0.2, 0.1, 0.05, 0.025, } amd $\{R_1, R_2\}$ from the first 5 min
  - trade off plot for R_1, R_2
  - density plot for r = { 0.1, 0.05, 0.025 } and $\{R_1, R_2\}$

4 Summary

- Compare TaskI, II, III
- Compare R_1, R_2 globally

Literatur

[1] R. Stadler, "Protocols for distributed management," 2012.