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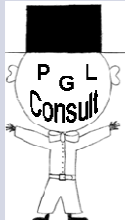
# Towards minimum configuration of appliances for home automation

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# Personal Background

- **Theoretical Work**
  - VDM-SL Semantics and Proof Rules
- **More Practical Work**
  - VDMTools architect
  - Transfer VDM to Industry
- **EU Connections**
  - Around 20 EU projects
  - International coordinator for exchange
  - Reviewer for EU on FP7 applications and projects
- **Employed by**
  - For 13 years: IFAD A/S 
  - For 3,5 years: Systematic Software Engineering A/S 
  - For 3,5 years:
    - Engineering College of Aarhus 
    - PGL Consult 





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# Home Automation Status

- Home automation have been around for many years
- There exists between 50 and 100 different standards for home automation devices (domotics)
- Many devices cannot communicate with each other
- You either need to be technically skilled or pay someone for setting it up in your own house
- Today still mainly used for new houses for rich families
- There is a large unexploited potential for using home automation for energy savings and comfort improvements
- But configuration of home automation must be enhanced

## Ongoing projects in Denmark



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- Minimum Configuration – Home Automation
  - User-driven innovation with focus on configuration
- Home Port
  - PhD's with focus on interoperability
- "Housing for life"
  - VKR Holding with focus on energy+ houses

# Minimum Configuration – Home Automation



- Partners:
  - Engineering College of Aarhus (prime)
  - Alexandra Institute
  - Velfac A/S
  - Develco products A/S
  - Seluxit Aps
  - Innovus A/S
- Duration: September 2008 – August 2010
- Funding by Danish Enterprise and Construction Authority
- See <http://www.iha.dk/Ongoing-Project-6322.aspx>

# Starting point for configuration platform



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General Favorites Home page

Divisions Devices Environments Routines

1 Garden 2 Garage 3 Bathroom 4 Living room 5 Outdoor Lights

6 Swimming Pool Lights 7 Ceiling light 8 Springlers 9 Reading Light 10 Exterior Temperature 25.9°

11 Curtains 12 Blinds 13 Kitchen Light 14 Cooker light 15 Go to Bed

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HOME AUTOMATION QUIIQ

November 2008

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# Home Port

- Partners:
  - Aalborg University (prime)
  - Alexandra Institute
  - Center for Software Innovation
  - Engineering College of Aarhus
  - Seluxit Aps
  - Servodan A/S
  - Develco products A/S
- Duration: August 2008 – February 2010
- Funding by Danish Software Innovation funds

”Housing for life” (in Danish Bolig for livet)





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## A new FP7 project in this area?

- We envisage a strong follow up project at a European scale here
  - Rethinking home automation
  - Across disciplinary boundaries
  - Autonomic behavior
  - Easy configuration
  - Easy interoperability
- Please contact me if you have an interest in such a project
- Let me know what role you feel your organisation could play here