



makes your home smart

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Smart home



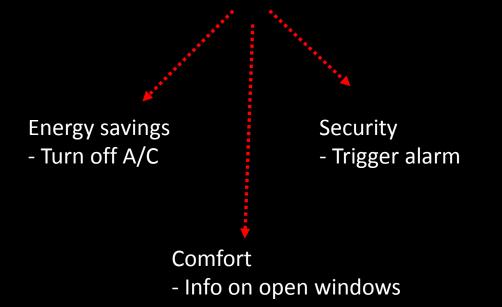
It's more than just an outlet controlled by an App...













The 3 secret keys to a successful Smarthome project

- Easy to use
 Simple to use
 Ease of use
- 3. Ease of use



Example – Bedside control on iPod



A current Project...

- House
 - 1.200 sqm living space
 - 300 sqm guest house
 - 8 bedroom / 10 baths
 - Wellness, bowling, cinema
- 900m RGB LED stripes
 - 180 groups
- 43 Audiozones
- 600 lights in 156 groups
- 2 swimming pools (total 160sqm)



>50 Projects

SOFTWARE SERVICES SL







Einfamilienhaus in Zürich



Gallery Beleuchtung GB. in Palma



Dental Clinic in Palma



Büro NS in Sa Cabaneta



Einfamilienhaus in Cabaneta



Wohnung in Llucmajor



Einfamilienhaus in Sa Rapita

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Einfamilienhaus in Manacor



VBus		Sonos	Dreambox	
KNX/EIB	/I-Bus	Squeezecer	nter uPnp	Revox
DMX			irTrans	Denon
Digitalstrom	>30 Pro	otocc	ls	WebSocket Ajax
Miele@Home	Wake-On-	Jen	al Syslog	Text-to-speech
serve@home	HTTP Cap	oi SMTP SNMP	GPIO	Servlets
Stiebel-Eltron	Growl iBeacon	SIP		Weather Underground



Visualization



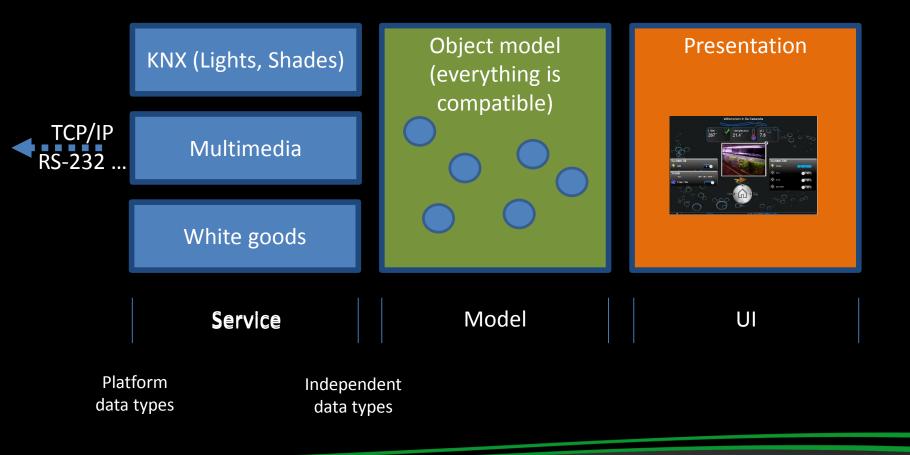
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Why Smalltalk?

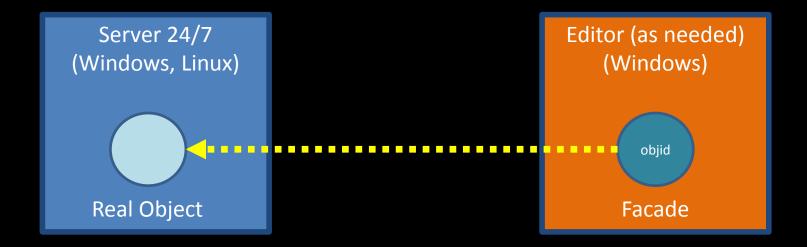


Advantage 1: 3-tier architecture



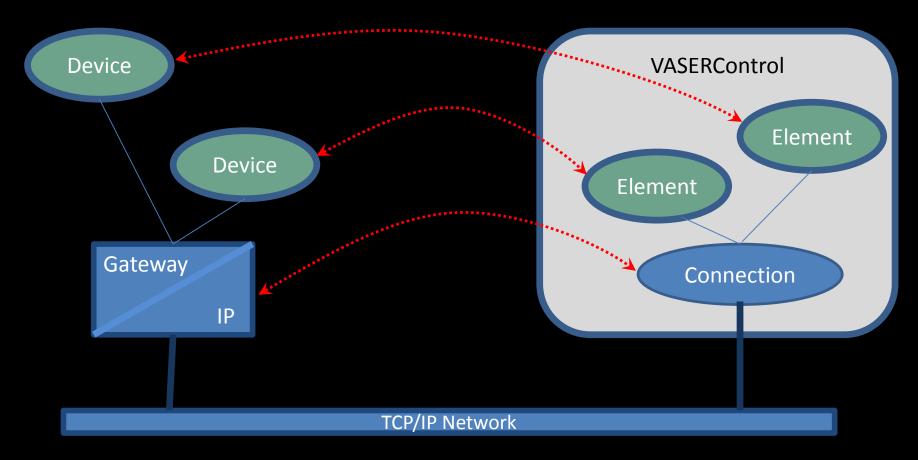


Advantage 2: Facade concept



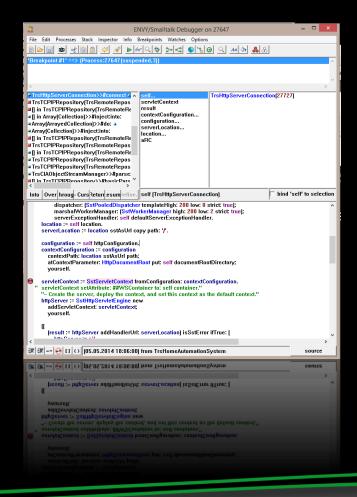


Advantage 3: Modeling the real world



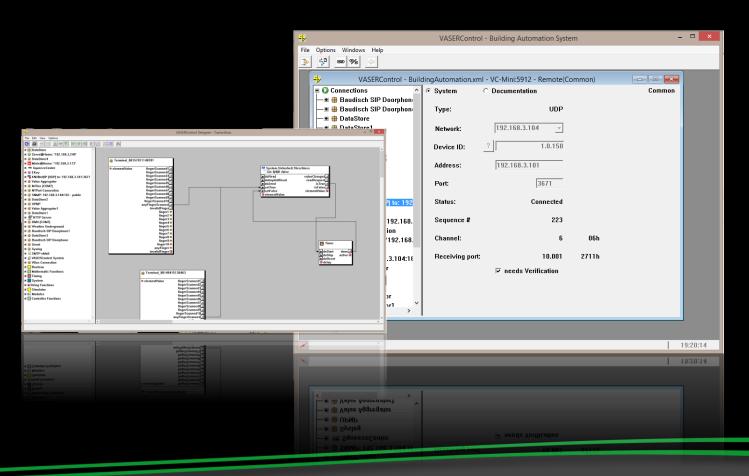


Advantage 4: Working in the debugger





Advantage 5: Remote editing





Advantage 6: Remote debugging

13	VVY/Smalltalk Debugger on 27647	- 🗆 🗙			
	Breakpoints Watches Options				
'Breakpoint #1' ==> {Process:27647{suspended,3}}					
-		v .			
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Array(Collection)>>#inject:into:	serverLocation location				
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建建 4 🙆 [1] () [05.05.2014 18:06:00]	from TrsHomeAutomationSystem	SOUICE			
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addServletContext: servletContext; yourself.					
httpServer := SstHttpServletEngine new					
- Oreate the server, deploy the context, and set this container."					
ervietContext := SstServietContext fromConfiguration: contextConfiguration.					

itextParameter: HttpDocumentRoot put: self documentRootDirectory: self.



Other key facts

Technology

- frameworks, patterns, know-how
- "Open-heart" coding
- **Stability**

Performance

- VM, development time **Distribution**



The most important fact

lt's fun



Summer project 1

Natural Aquarium Lighting

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"Normal" fish tank lights

- Manual switch
- Timer
 - Every day at exact the same time
- 0% to 100% in fractions of a seconds



Problems

- Pupils are fix
- Stress for the fish
- No seasons
- No twilight
- Constant colour scheme
- No moon cycle



Goals

- Natural environment for fish
- Better breeding results
- Longer lifespan
- "Make fish happy"



Aqua lighting

- RGB(W) Lights
 - Simulate different colours during day/night time
- Linked with Weather Webservice
 - Simulate seasons
 - Simulate light levels due to clouds



Some impressions



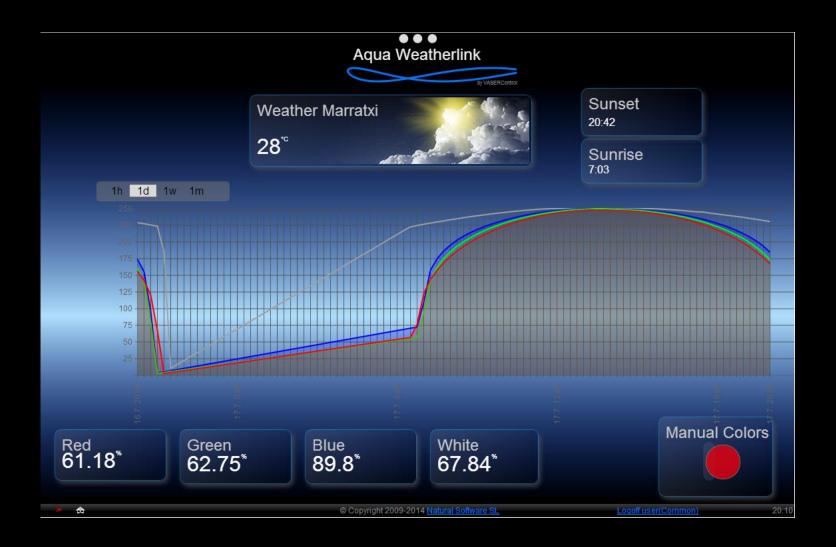


Midday

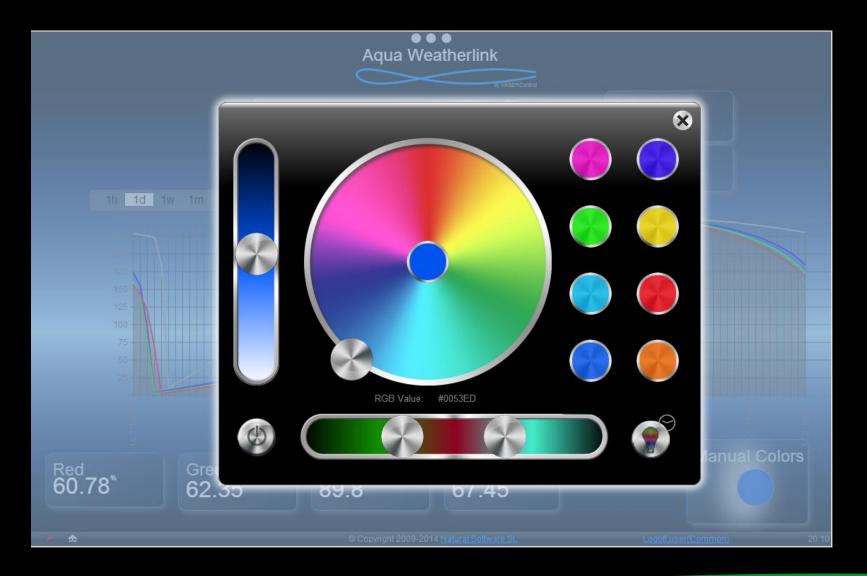
Twilight

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Summer project 2

Zen Garden Robot

VASERControl/Lego EV3

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It all started with Moonbots...



Unfortunately we didn't make it into phase 2

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Interfacing EV3 with Smalltalk

- Ported Jannik Lavals code to VA/Smalltalk
- Created Parts for VASERControl

• Now Lego EV3 functionality can be linked to home automation events



New challenge

Instead of a moon robot...

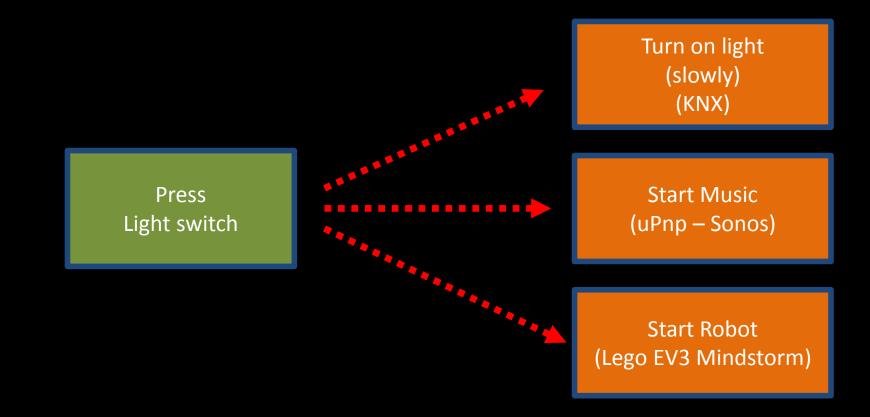
Implement a ZEN Robot

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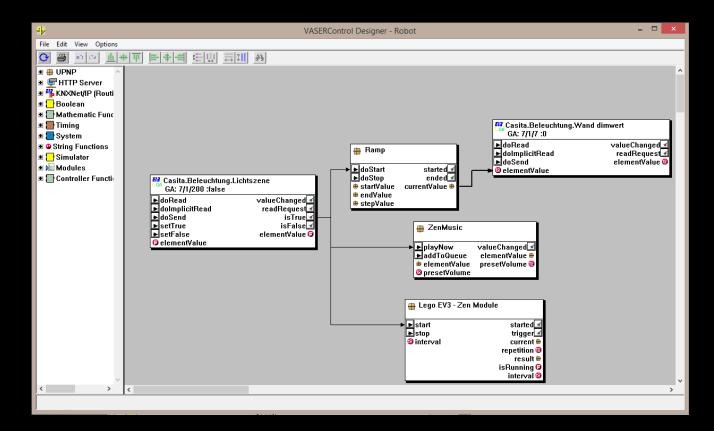
What we want to do



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Implementation









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