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An Architecture that Treats Everyday Objects as Communicating Tangible Components

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Abstract

The paper describes research that has been carriedout in "extrovert-Gadgets", a research project funded in the context of EU IST/FET proactive initiative "Disappearing Computer". It presents a set of architectures for the composition of ubiquitous computing applications. The proposed architectures are part of GAS (Gadgetware Architectural Style), a generic architectural style, which can be used to describe everyday environments populated with computational artifacts. The overall innovation of the GAS approach lies in viewing the process where people configure and use complex collections of interacting eGadgets, as having much in common with the process where system builders design software systems out of components. This approach regards the everyday environment as being populated with tens even hundreds of artifacts, which people (who are always in control) associate in ad-hoc and dynamic ways.

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