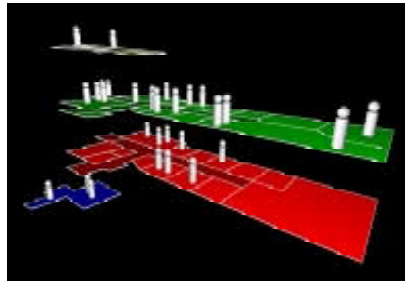


The Active Badge System

Location in the Active Office Environment

Scenario



- Hands-free identification and location
- In-building configuration and control
- Towards Global Smart Personalisation
- Supporting the "Network Persona"

"...a do nothing technology"

Active Office Control

- Mobile desktops:



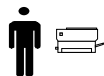
Teleporting: bringing a mobile desktop to the nearest display

- Environmental control:



Temperature and humidity
Lighting and power saving

- Local facilities:



Nearest printer and confidential printing

System Components



- Active badges are worn by people
- They transmit an infra-red code every few seconds
- Badges have a bi-directional capability
- Batteries last around one year

Equipment badges are attached to objects
Batteries last around five years



- Sensors are in fixed known positions
- They are connected by a private network
- The network also supplies power
- They are interrogated by a network driver

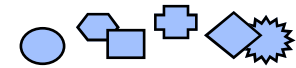
"...indispensable!"

"...increased politeness to colleagues"

"...makes systems simpler to use"

Software Architecture

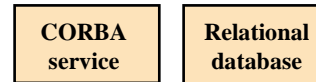
Applications



Application support

C, C++, Tcl/Tk, Java, SQL

Information systems



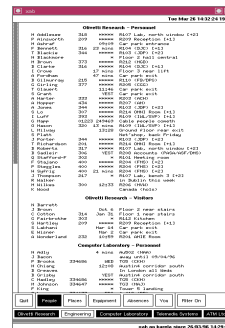
Network drivers



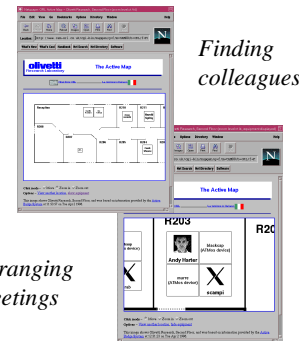
"...addictive!"

"...liberating: things just happen"

Presentation Applications



Arranging meetings



Finding colleagues

- These are available *everywhere* and to *everyone*
- Location of people *and* equipment is depicted

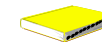
"...foot control of communications"

Improving Communications

- Automatic communications control:



Telephone call routing: 'call by name'



Yellow pages: 'call by service'

- Communications context provided:



'In a meeting'



'On the move'

- Global access to location information:



via the World Wide Web and Java