

Lifeline & MAPS

Monitoring Client Activities

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Real people, real needs ...

Denver Post

Disabled woman missing

By Michael Booth
Denver Post Staff Writer

Tuesday, February 25, 2003 - For Susan Austin, a trip on a city bus was no mundane chore, but an adventure offering a chance at some hard-won freedom.

Now her family and Denver police fear the last bus trip she took became a dangerous journey.

Austin, a 43-year-old woman who is developmentally disabled, has not been seen since boarding a bus in Montbello, heading toward downtown, on Wednesday. Her sister, Mary Austin of Denver, fears she may have been sidetracked by someone offering a ride or by countless other options distracting a person who needs help navigating through daily life.

Austin was living at a "host home" in the Montbello area, learning more independence after a stint in a group home with other disabled residents. Austin can read, can take public transportation and has mastered some other tasks, and she wanted to take trips by herself to visit shopping malls or run errands, Mary Austin said.

The morning she disappeared, she was heading toward the 16th Street Mall downtown on an 8:30 a.m. bus to look for hair styling mousse.

Mary Austin said her sister has accepted rides before from strangers, who did bring her home, even though she was discouraged from doing so, and she worries that this time she may have gotten into the wrong car.

Susan Austin is white, 5 feet 2 inches tall and 165 pounds with brown eyes. She is on medication for anxiety. Police ask that anyone who may have seen her call the missing persons unit at 720-913-6911.



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Scenario

Amy can get a job in the mail room, but...

- She gets easily distracted and wanders off
- Her caregivers worry that she will get lost
- She needs a job coach, but...
 - human coach is too expensive
 - existing electronic Job Coaches are too limited



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Background

- Visions: in-home task prompting systems
(Bill Baseman and Dan Davies)
 - no support beyond the home
- Pocket Coach--mobile prompting
(Dan Davies w/Ablelink)
 - no monitoring support
 - not context-aware
- It's a matter of adoption
 - effective task prompting requires basic context information such as location
 - caregivers need to trust the technology.

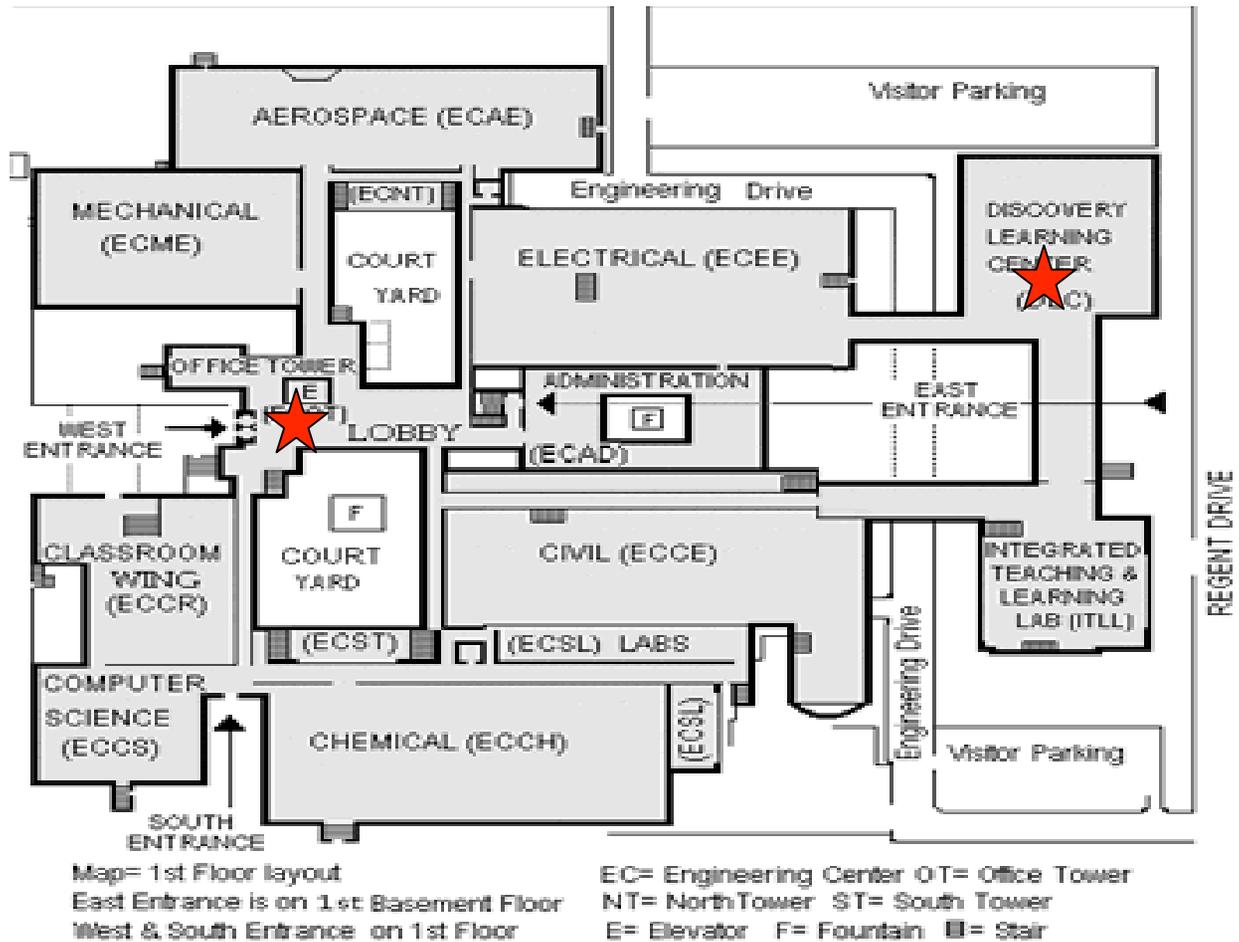


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Setup

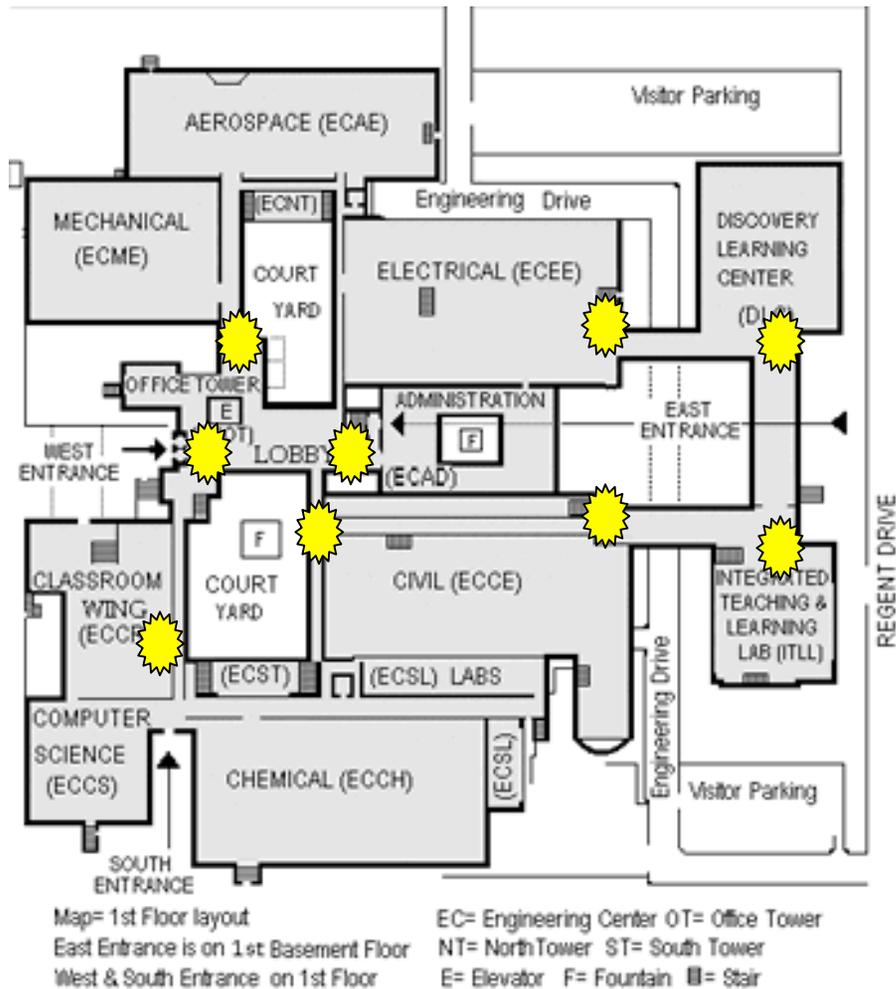


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Setup



- MANTI are small networked computers that can:
- incorporate sensors (e.g., GPS)
 - communicate with each other



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What you will see now...

- real-time update of client status
- client's ability to signal caregiver
- automatic detection and notification of errors



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Lifeline—MAPS Communication



Creates a RSO on the server and updates it using Real-Time Messaging

Synchronizes with RSO using RTMP

Sends HTTP request to e-mail CGI

CGI sends SMS Message to caregiver's cell phone

Client running MAPS

Lifeline: Amy Martin

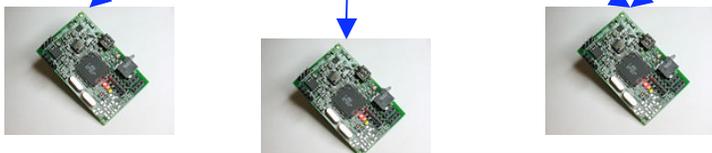
Script Name: "MANTIS"
Started: Tue Mar 18 10:28:00 GMT-0700 2003
ERROR: Time Limit Exceeded!

Step Name	Started	Time
"make guide from engr103d"	Tue Mar 18 10:28:04	60
"turn around and walk to end of hall"	Tue Mar 18 10:28:17	61
"turn right here"	Tue Mar 18 10:28:19	62
"proceed to the right"	Tue Mar 18 10:28:22	63
"go down the hall to the left"	Tue Mar 18 10:28:40	66
"walk down the hall to end"	Tue Mar 18 10:28:45	67
"turn left here"	Tue Mar 18 10:28:48	68
"go down the hall to end of hall"	Tue Mar 18 10:28:52	69
"you are in the DLC"	Tue Mar 18 10:28:54	70
"take immediate right and immediate left"		
"you have arrived at the 133 lab"		



Lifeline monitoring client

Caregiver



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Benefits

- Reduced error
 - Client does not need to signal state transitions
 - Decisions made with more accurate information
- Increased client and caregiver confidence
 - Caregiver knows where the client is located and can quickly deploy assistance
 - Client knows that there is a safety net and will be more inclined to experiment



What's Next

- Develop an interface to utilize MANTIS sensors
- Testing in controlled settings with clients
- Participatory design with caregivers
- Possible applications:
 - Family and Group Home Support
 - Work and Leisure Activities
 - Smart Homes
 - e-Tours



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