IDEAS Competition 2002: Salvation Army Data Collection System Project Report
http://www.mit.edu/~benleong/salvation
2/15/02

The data-collection system has almost been completed. The progress of each subsystem in the (new) system-level diagram is reported below, and elaborates on what is posted at:
www.mit.edu/~benleong/salvation/progress.html
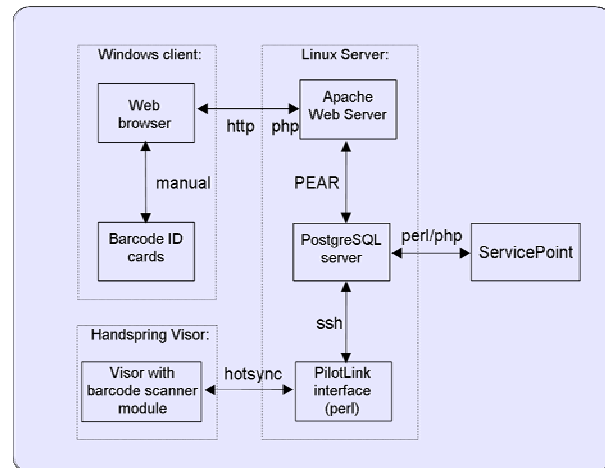
Handspring Visor (Handheld Technology) Team:
The PalmOS-based barcode scanning application is fully functional and has been in use since 10/28/02. Staff workers in the Salvation Army have found it intuitive to use, and require only a few minutes to become familiar with its operation. A screen shot of the application is shown to the right.

Members: Ji-Jon Sit, David Diel

Pilotlink Conduit (Palm-Database Interface) Team:
PilotLink is an opensource conduit that provides a library of functions (in C, Perl and other languages) to communicate with PalmOS devices. It was downloaded from the URL: http://pilot-link.org/source/pilotlink.0.11.5.tar.gz
And a Perl script was written to automatically download all scanned records off the Visor whenever the hotsync button on the Visor's cradle is pressed. These scanned records are then piped to the SQL database using SSH port forwarding. The PilotLink conduit has been running smoothly since 12/13/02.

Members: Archit Shah, Jonathan Hodges

Windows Client (User Interface) Team:

The almost-finished version of our Windows client is posted on the Apache web server at: http://18.26.2.83/salvation/

Intakes at various levels of detail can be performed to add clients into the database, via the Client Access section of the web page. Client records can then be viewed and edited.

Members: Cynthia Lo, Steve Geiger

SQL Server (Database Application) Team:

Massive php scripting behind the scenes that hooks the user interface to the database is currently under way, to make the View/edit Records section of Client Access functional. http://18.26.2.83/salvation/ViewEdit_Records.shtml

Members: Ben Leong, Indraneel Chakraborty, Steve Richman


Notable Milestones:

9/21/02: At MIT's Graduate Student Volunteer Day III, we performed a pilot run of the data collection system, by issuing laser-printed barcode stickers to about 30 clients in the shelter at the time, and scanning them in as they received a normal meal service. A sample of the barcode sticker that we used that day is shown to the right.

It was a great success. The meal scans were completed by a newly trained staff worker in less than a minute, and after polling the participants with a short questionnaire, we determined that the response to the new system was overwhelmingly in favor of the card. There were no negative reactions, and the majority of respondents were enthusiastic about receiving a card. Several even wanted to keep the stickers we handed out!

11/21/02: Through the Harvard Business School's VCO (Volunteer Consulting Organization) Fair, we were connected with a team of four 1st-year HBS students: Rob Metcalf, Julia Feldman, Elizabeth Dawson and Kruti Patel. These HBS students have volunteered their time and talents to help us formulate a business model that can maximize the system's impact and take it into the longer-term future. We had our first meeting with the team on 1/29/03, and they are now conducting some preliminary market research.

At present, over 600 Preferred Client Cards have been issued to shelter clients since 10/28/02, out of the 1000 cards donated by Arthur Blank & Co. A sample card is shown below:
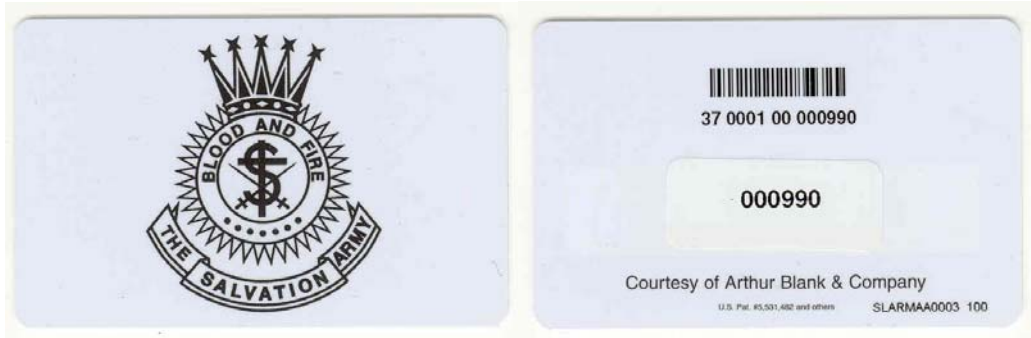
Shelter clients are now scanned in for meals every day, adding an average of 30 new scans to the database per day. What remains is for the user interface to be completed and rendered fully functional by server-side php scripts.