

Web-based Route Finder for Tren Urbano

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Route Finder Presentation Outline

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 - Initial Implementation
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Research Objectives

To design a powerful and simple to use route finder for Tren Urbano and the San Juan Metropolitan Area that provides point-and-click access to public transportation information and resources to potential users of Tren Urbano.

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Research Methodology

- Gather Information
- Conduct a Task Analysis
- Initial Implementation and Design
- Testing and Feedback
- Future Implementations

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The need for a Web-based Route Finder

- WWW increasing popularity and use
- Simple well-known point-and-click interface
- Multiple access points
- Real-time updates are possible
- Low cost implementation
- Easy to maintain

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Information Sources and Examples

- SmartRoute Systems Online Service
- Java Subway Shortest Path Finder for NYC
 - <http://www.stern.nyu.edu/~lc16/bin/subway/subway.html>
- Washington CGI Route Finder (BusPro[©])
 - <http://auvm.american.edu/~ir7695a/buspro.html>
- Task Analysis Procedure Information
 - Handbook of Human-Computer Interaction
 - A task Analytic Approach to Dialogue Design

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Task Analysis: Definition

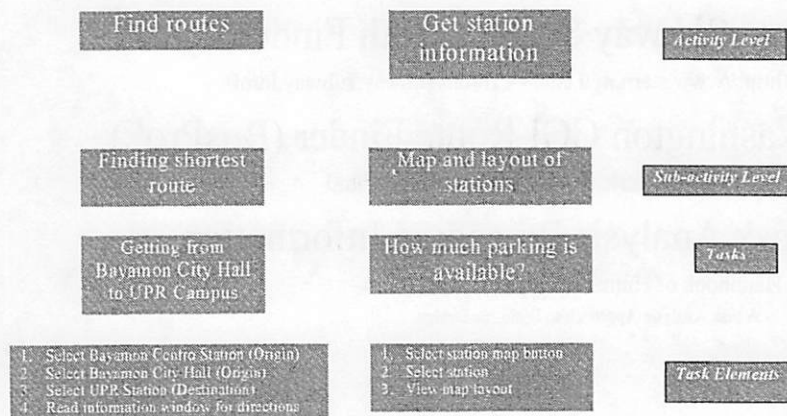
A task analysis is a description of jobs or procedures in terms of identifiable units of activities. After listing the tasks each of them is rated by importance and difficulty. There are 4 important terms:

- **Activities** are the top-level job functions.
- **Sub-activities** state work performance at the next level of detail.
- **Tasks** are statements describing one purposeful job action of a user, having a discernible beginning and end.
- **Task Elements** are the steps by which a **Task** is accomplished.

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Task Analysis: Example

Task Analysis



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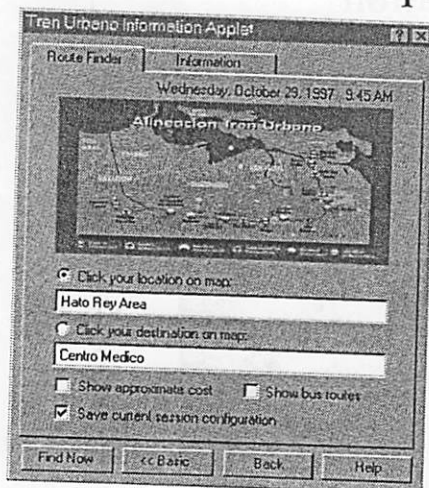
Task Analysis: Results

The most requested features by the users were:

- Show the optimum route graphically
- Provide station information
- Show how to use the train
- Show cost and time of trips
- Show important places adjacent to a station
- Easy to use interface

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Tren Urbano Route Finder Initial Implementation



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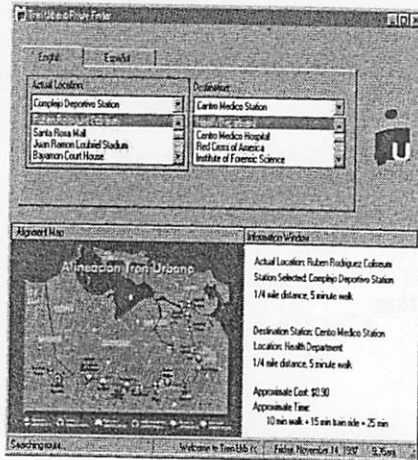
◆ Features:

- + Graphical interface
- + Two ways of entering information
- + Small compact design

◆ Disadvantages:

- Single language
- Too many options
- No visible information window

Tren Urbano Route Finder Actual Implementation

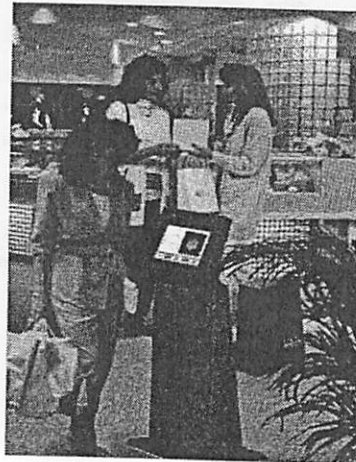


◆ Features:

- + Graphical interface, just point-and-click
- + Bilingual interface
- + Information window
- + Simple interface, almost no buttons
- + Instant route calculation
- + Important adjacent areas displayed under the station name

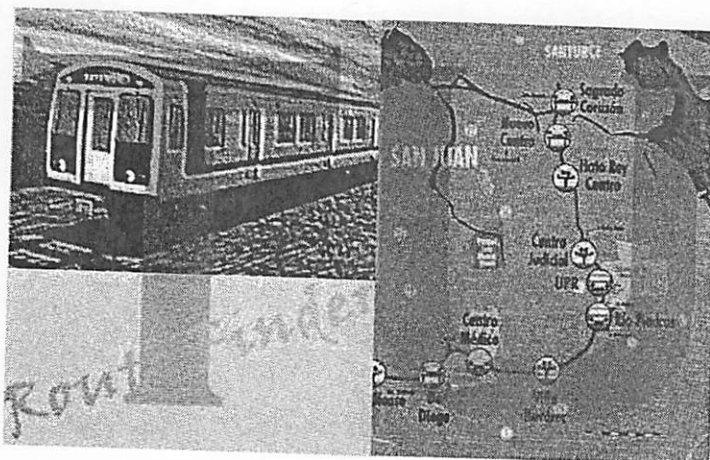
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Tren Urbano Route Finder Future Implementation



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Questions ?



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