Interactive Wheelchair Access Maps
- A Prototype -

Charles E. Bowler               The University of Maryland
Paul Cleveland                    AVATECH Solutions
The Accessibility Problem

- Accessibility for Persons with Physical Disabilities
- Complex Pedestrian Paths

Access Barriers
- Stairs
- Doors
- Door Jambs
- Curb Lips
- Steep Grades
- Walkway widths
- Lack of Curb ramps for roadway crossings
Complex Path Choices
Dead-end Condition
Special Network Considerations

- Central destination node
- Link directional designation
- Adjustable link/node properties
- Common connection for all entrances
- Potential for “shortcuts” thru building
  - Some realistic reasons for shortcuts
Network Structure
Multi-path area
Path Choices

Network Topology Analysis - Select Method

<table>
<thead>
<tr>
<th>Analysis Type</th>
<th>Description: handicapped path test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locations</td>
<td>Calculates the optimal route from a start point, to one or more intermediate points, and back to the start point. For example, you could find the best route to follow when visiting multiple customer sites.</td>
</tr>
<tr>
<td>Resistance and Direction</td>
<td></td>
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<tr>
<td>Output Methods</td>
<td></td>
</tr>
</tbody>
</table>

- Shortest path
- Best route
- Flood trace

![Map with locations marked](image)
Shortest Path
Multi-Stop Path
Flood Trace
Distribution of Mapping

- How to distribute?
  - Map - wall size open or folded
  - Map - 11x17 size open or folded
  - Map - interactive on the web w/ printout

- All means useful

- Interactive web format most useful and can be customized for individual needs
Features of web access map

- Interactive web map is customized to highlight specific trip path
- Beginning and ending points can be defined by bldg name, number or direct selection
- Printed single sheet more useable
- Hyperlinks to printable floor plans
  - Room numbers
  - Alternative entrances
  - Accessible elevators and restrooms
Message written in stone
Now - How do we get our mapping onto the Web?
“Best Route Application”

- Built on a web interface
- Can be used with MapGuide, ArcIMS, or Maplnfo.
- Uses Visual Basic but will be updated to use .Net, etc.

It comes down to your data!
“Best Route Application”
Access the site at:
http://59.90.16.209:7070/Routing1/

paul.cleveland@avat.com

cbowler@fm.umd.edu

Thank You