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Project Overview

- As GPS becomes pervasive, we need better ways to identify locations in the world
- Neither street addresses nor latitude/longitude are ideal
  - Streets are ambiguous (“Main Street”) or inconsistently numbered
  - Many locations have no street address (picnic table, parking space, building in a campus or complex)
  - Latitude/longitude needs many digits (14+) and has no spatial locality
- Goal: GPS address schemes that are easy to use

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Progress Through December 2002

- Design of three-part address scheme:
  - Name of a coordinate system, e.g., *Cambridge*
  - Relative 2D offset, e.g., *.239.870*
  - Optional check letter to check for errors
- Design of name lookup service
  - Distributed, hierarchical
  - Resolves *Cambridge* into a local coordinate system (latitude, longitude, and scale factor) and optional children (e.g., *MIT*, *Harvard*, or *East Cambridge*)

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Research Plan for the Next Six Months

- User study of address schemes
  - Compare new scheme with street addresses and latitude/longitude on realistic tasks
- Implementation and deployment of:
  - Name lookup service using US geographical data
  - Translation service that converts between schemes
- Integration with handheld navigation application