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
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)
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