

**Massachusetts Institute of Technology
Department of Urban Studies and Planning**



**11.204: Planning, Communications & Digital Media
Fall 2002**

Recitation 7: Introduction to GIS Using ArcView

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**I. Scenario: Learning to Use ArcView While Continuing to Exploring
Central Square**

- Laboratory exercises are cumulative with respect to skill-building and analyzing place
- In Lab 1, you collected data on Central Square in the form of digital photographs
- In Lab 2, you observed population change over time (1970-2000) for Central Square, Cambridge, and Massachusetts
- In Lab 3, you will use data from the 2000 Census to visualize spatial distribution of Cambridge's population
- Key word on first page of the syllabus is "introduce"
- Hint: If you engage yourself in the analysis of Central Square for Labs 1-5, you'll zip through Project 2!

II. Introducing ArcView

- GIS software vendors and products

VENDORS

ESRI (Environmental Systems Research Institute, Inc.)

Integrgraph

MapInfo Corporation

Microsoft

PRODUCTS

ArcView, ArcInfo, ArcGIS; ArcIMS

GeoMedia; GeoMedia Web Map

MapInfo; MapXtreme

MapPoint

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III. ArcView3.2 Interface and Elements (*Existing Project*)

- Launch CRL version ArcView 3.2
- Open an Existing Project File
- What are the Five Document Types? What is a document user interface?
- What is a View? A Theme? An Attribute Table?
- Geographic features;
The point (*bookstores or community development corporations*), line (*subway lines or streets*) and polygon (*census tracts or block groups*)
- Attributes of each feature you listed above
- GIS and the Concept of Overlay
- Making Themes Active; Turning Themes On and Off
- Panning and Zooming (In/Out/Active Theme/Selected/Previous); Information Tool
- Using Help

IV. Creating a New Project

- Launch ArcView and Create a New Project
- Create a New View and Add Themes
- Changing the View Properties (Map Units: Type in "Meters" - data are stored as; Distance Units: Type in "Miles")

V. Symbolization, Classification, and Layout

- Fill Pattern, Outline Width, Outline Color
 - Style, Size, Color
 - Graduated Color, Classification Field and Type (Quantile, Equal Interval, and Natural Breaks)
 - Generate a Layout; Add Title, Author's Name, Date and Map Elements (North Arrow, Legend, Scale, and Title)
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Created October 2002 by Lorlene Hoyt.