Using ArcReader to Share Maps: An Emergency Management Agency Application

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Distribution of GIS Data via ArcReader

- A growing need to get data out to people (public, clients, etc.)
- Adobe Acrobat Comparison
- Controlled Access – Version 9.0
- Good planning tool
- Keeps all officials on same page
ArcReader Sample Project
Purpose

- **Client:** Maryland Emergency Management Agency (MEMA)

- **Needing a means to distribute geographic data to emergency managers within each Maryland county and several specific municipalities (Ocean City, Annapolis)**
Purpose

- MEMA has GIS capabilities
- Keeping in mind that not all jurisdictions have GIS departments and/or capabilities
- ArcReader was chosen to meet the needs of all jurisdictions.
Project Background

• Hazards
  – Coastal Storm
  – Dam Inundation Areas
  – 100-Year Floodplains
  – Radiological Exposure
  – Shoreline Erosion
  – Sinkhole-Prone Areas
  – Heavy Snow
  – Wildfire
Project Background

- Critical and state-owned and operated facilities
  - Fire, Police, School, Medical
  - Hazardous Waste Generators
  - High Potential Loss Facilities (Dams, Power Plants, etc.)
  - Lifeline Utilities (Water Sources, Pumping Stations, etc.)
  - Transportation Facilities

- Residential Areas
  - At Risk
  - No Risk
Overview of ArcReader 8.3

• ESRI Product
• Freely available
  – Downloadable
  – CD
  – ArcGIS Purchase
• Easy-to-use
• Windows-based
• ArcGIS look and feel
Creating ArcReader File in ArcGIS

• Data Presentation is Designed in ArcMap
  – Compilation of data
  – Symbolization
  – Labeling
  – Layout
  – Bookmarking
ArcGIS Publisher

- ArcGIS Publisher extension converts map documents (.mxd) to published map files (.pmf)

- ArcReader views these published files
ArcGIS Publisher 8.3 Settings

Publisher Settings

Contents

Layers
- Include all layers
- Only include layers that are checked on in the Table of Contents

Functionality

Views
Which views do you want to be available in your published map?
- Data view and Layout view.
- Data view only.
  - Restrict Data view to one data frame:
    - Layers
- Layout view only.

Other

OK Cancel
ArcGIS Publisher 8.3 Settings

Publisher Settings

Optional Functionality
Choose which functions can be used with your published map.

Checked functions will be available when the map is opened with ArcReader.

- Find
- Identify
- Hyperlink
- Print
- Change Layer Visibility
- View Table of Contents
- Measure

Display disabled functionality message when this map is opened in ArcReader

OK  Cancel
ArcGIS Publisher 8.3 Settings

Password Protection
- Password protect the published map.
  - ArcReader will only open the map if the user enters this password:
    - Password: [blank]
    - Type again to confirm: [blank]

Secure Layer Password
- Save the password within the published map

Comments
- These comments will appear in the properties dialog of ArcReader:
  - Map Produced with ArcGIS by Towson University's Center for Geographic Information Sciences
ArcReader 8.3 Functionality

- View, explore, and print
- Read-only data

ArcReader Key Functions

- Zoom in/out
- Pan
- Go to full extent
- Go to previous/next extent
- Identify Tool (multilayer)
- Data view and layout view
- View spatial bookmarks
- Find Tool

- View and print preauthored map layouts
- Open/Close published map files
- Shows recently opened maps
- Measure Tool
- Hyperlink Tool
- Magnifier Window
ArcGIS Publisher 9.0

• Data Packaging (bundling of data)
  – Clip vector and raster data
  – Export vector data/convert it to shapefile, personal geodatabase
  – Export raster data in its original format or convert it to an ERDAS IMAGINE file
Publisher 9.0 Data Packaging Options

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ArcGIS Publisher 9.0

- ArcReader Developer Control (Customizing)
  - Simple query and search functionality
  - Direct read-only access to published map files
  - ActiveX and .NET Windows Control versions
  - Help and code samples
  - Royalty-free distribution
Additional Security Features

- Restricted Access to only ArcReader
- Expiration Date
- Passwords
ArcReader 9.0

- Improved Identify tool
- Take snapshots of current display (bitmap)
- Enhanced Find Dialog Box
- Improved Measure tool
- Supports topology layers, event layers, and geometric networks
- Support for many of the new ArcGIS 9 features
  - ArcGIS Server
  - Raster catalogs
  - ArcSDE 9
  - Advanced labeling
- Improvements to the performance of hyperlinks
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