ArcGIS 10.1
An Overview of the System

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ArcGIS 10.1
ArcGIS 10.1

Introducing Many New Capabilities

10.1
2012

Social Networks
Geospatial Platform
Location Based Services
Sharing
Crowdsourcing
Visualization
Transparency
Standards
Content Mapping
Hosting
Science

Cloud
Open Data
The Web
Workflow
User Experience
GIS Solutions
3D
Portals
Very Large Spatial Databases

VGI
Data Quality
Networks
Temporal
Templates

Integration of Imagery and Remote Sensing
Mapping
Security
Visualization

GIS Solutions
Applications

Facility Management
Data Management
Access
Citizen Engagement

Mobility
Integration

Workflow
Portals

Web Based
3D

Discovery
Hosting

Cloud

10.1
10.0

Builds on Success of ArcGIS 10
ArcGIS 10.1 Themes

• Provide a New Online GIS Platform
• Make Sharing easy
• Reinforce Traditional GIS
• Strengthen Server GIS
• Expand Mobile GIS
• Empower Developers
ArcGIS Online
ArcGIS Online is Evolving Rapidly

- Basemaps
- Catalogue and Group Based Sharing
- Viewers and Web Maps
- Open Data and Application Mapping
ArcGIS Online is Evolving Rapidly

- Basemaps
- Catalogue and Group Based Sharing
- Viewers and Web Maps
- Open Data and Application Mapping
- Subscriptions, Infrastructure, Hosting, Organizations
- Integration with 10.1

Mapping Subscriptions, Infrastructure, Hosting, Organizations
What can I do with ArcGIS Online?

- Leverage existing maps and data
- Upload and Connect to Your Data
- Style and Create intelligent webmaps
- Store, Manage, and Share
- Interact with the map on any device
- Embed in web sites or applications
- Compliment Current Infrastructure
- Organize your organizations data
Intelligent Maps

- Interactive
- Easily Created by Anyone
- Incorporates multiple services & datasets
- Visualize
  - Story
  - Situational Awareness
- Editing & crowd sourcing
- Analysis

Services and Data
Geospatial Infrastructure

• Create hosted map services
  - Tiled maps and feature services
  - No servers, infrastructure, or technical expertise
• Managed, secure, scalable
• Catalog of the organizations geospatial content including your existing ArcGIS Server services
• Personalized look and feel
Hosted Map Services

- **Publish from ArcMap 10.1**
  - Create feature and/or tile services from within the software
  - Define the tiling scheme and other parameters
  - Tiles are generated in the cloud as part of the service

- **Publish feature services from web clients**
  - ArcGIS.com
  - ArcGIS Explorer Online
  - Feature services from
    - CSV’s, GPX’s
    - Shapefiles
Organizational Online Site

• Create
  - Secure groups
  - Control Data Sharing Policies

• Administer
  - Web Services
  - Users / Access
Sharing Maps and Analysis
Sharing as a Package

Professional to Professional

ArcGIS Online

Sharing Tradecraft

New at 10.1 Geoprocessing, Tile, & Locator Packages

Map and Layer Packages

ArcGIS for Desktop
Sharing as Services

Professional to Everyone

Desktop

Services

Packages

Online (Cloud)

Server

Portal
Sharing as Services

Professional to Everyone

- Make it easier to share GIS resources
  - Unified sharing experience
  - Comprehensive Analysis
  - Sharing to servers in the cloud and to ArcGIS Online
Sharing Analysis

Analysis

Share

Package

GIS Professionals

Everyone

Share As

Save As...

Geoprocessing Package...

Geoprocessing Service...

Service
Sharing Locators

- Packaging locators
- Share as a geocode service
Improving GIS Tools
Mapping and Visualization

*Enhancing the functionality from 10*

**Dynamic Legends**

**Time live mode**

**More Python scripting**

**Rule-Based Generalization**

Before

After
Mapping Improvements

- **Layout**
  - Image of a map showing a scale bar and property use legend.

- **Coordinate Systems**
  - Image of a software window showing coordinate system settings.

- **Symbology**
  - Images of different map symbols.

- **Labeling**
  - Image of a labeled map section.
Improved Desktop Search

Spatial Search
(extent or name)

Improved Sort & Filter
(Type, Projection, Spatial relevance, ..)
Python Improvements

- **Network Analyst Module**
  - Automate NA workflows through Python

- **Data Access Module**
  - Fast cursor performance
  - Edit operations
  - Geometry operators

- **Python Toolboxes**
  - Easier for python developers to create tools
  - Create tools outside of desktop

- **Python Add-ins**
  - Extend desktop functionality with Python
New Geoprocessing Tools

- 85 New Tools
- 117 New Parameters
More Formats and Better Support

- GOS (GPX) to Layer
- GeoTagged Photos To Points
- Better KML experience
- Easier to do complex workflows
  - Tabulate Intersection
  - Polygon Neighbors

Geotagged Photos To Point

Tabulate Intersection
Improved Analysis Tools

Spatial Scale
- ¼ Mile Radius
- ½ Mile Radius
- 1 Mile Radius

Areal Interpolation

Geodetic Buffers

Space /Time Clusters

Empirical Bayesian Kriging

3D Shadow & Visibility Volumes
Geodatabase Improvements

Enhanced Geodatabase
- Admin Tools
- Schema Updates

Native SQL Access
- SQL Server
- Oracle
- Postgres
- DB2
- NETEZZA (New)

ArcGIS

Feature Edit Tracking
- Editor
- Tom
- Bill
- Joe
Imagery

- Automatic Image Enhancement / More Tools
- Mensuration (Height measurement)
- Easier Georeferencing
- Raster Products
- Additional Format/Models (CSM)
- Mosaic Dataset Analyzer
- REST Based Management (New, Update, Delete, Mensuration, Metadata...)

Automatic Enhancement
Highly Accurate Measurement
Integrates Video (FMV)
Improved Metadata

Standardizing how Metadata is Extracted and Accessible
Image Enhancement

Automated Determination of Optimum Color
Image Enhancement

Automated Determination of Optimum Color
Color Correction Improvements

Color Balance Collections of Imagery
Categorical Data

Support Categorical Data in Mosaic Datasets and Image Services

- GRID, VAT
- Raster + DBF
More Formats & Raster Types

• 16 Additional Formats
  - Inc: MrSID MG4, GXF, DOQ2, PCI.aux, TerraSAR-X

• Improved Raster Types
  - SPOT 5
  - RadarSAT 2
  - Landsat
  - ...

• CSM Support
Lidar

- Support Lidar LAS files
- Dynamic Mosaic
- Use directly as
  - TIN
  - Raster
  - Point Cloud
- Visualization & Analysis
Tools for 3D Virtual Cities

City planners, emergency response, public safety

Easily find, consume and share city data online

Intuitive editing of city level data

Targeted city analysis tools

Performance / Usability
Tools for 3D Virtual campuses

*Universities, military bases, hospitals*

Virtual campus template

Intuitive editing of campus level data

BISDM 3.0

Easily find, consume and share campus data online
New Tools to Build 3D Content

Not part of 10.1, will be integrated in the future
ArcGIS 10.1 Server
ArcGIS Server

Enhancing the Architecture and Adding Capabilities

- Improved Performance
- Easy Install/Admin
- Simple Service Creation
- Native 64 Bit
- Strong Linux
- Highly Scalable
More

On-the-Fly Symbology

Standards Support

Listening to your specific functional requests

- WMS
- WCS
- WFS
- KML
- HTML
- JSON
- REST
- WPS
- WMTS

Web printing
Cloud

Enhanced and Expanded

- More cloud friendly architecture
  - Better clustering support: publishing, async-gp and caching
  - Easier to administer: launch, auto-scaling etc
  - Publishing from ArcGIS Desktop
- Enhanced Amazon support
ArcGIS Runtime
ArcGIS Runtime

A New Lightweight Platform for Developers

- Easy to Deploy
- Fast & Powerful
- Small Footprint
- Windows/Linux
- 64-Bit Native (& 32)
- WPF/Java/Qt

. . . Supports in Connected and Disconnected Environments
ArcGIS Runtime for Windows and Linux

Addresses Limitations With Current Technology

• New Architecture (64 bit)
• Easy to Deploy Solutions
  - Software, maps and data
  - No install required
  - Deploy only needed components
  - Side-by-Side deployment
  - Independent of other ArcGIS installs
• Modern API (WPF, Java and Qt)
• Supports both Connected and Disconnected Environments
• Mapping, Geoprocessing and Editing
Devices Get Easier

• Waypoint Navigation
• Edit Existing Geometry
• Geodatabase Attachments
• Simplified Data Collection
• Bookmarks
• Map Notes and popups
• Dateline Support
• ArcGIS Portal support
Work with your Mobile GIS Device Offline
And another thing...
## Name Change

<table>
<thead>
<tr>
<th>Name Prior to 10.1</th>
<th>New Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ArcGIS Desktop</td>
<td>ArcGIS for Desktop</td>
</tr>
<tr>
<td>ArcInfo</td>
<td>ArcGIS for Desktop Advanced</td>
</tr>
<tr>
<td>ArcEditor</td>
<td>ArcGIS for Desktop Standard</td>
</tr>
<tr>
<td>ArcView</td>
<td>ArcGIS for Desktop Basic</td>
</tr>
</tbody>
</table>
IMPORTANT: Some stuff goes away…

The following does **NOT** ship with 10.1

- ArcInfo Workstation (10.0 continues to work)
- ArcIMS
- 32-bit version of ArcGIS Server
- SQL Server 2005 Support
- Visual Studio 2008 support
- Windows Server 2003 Support
- VBA*
Thank you . . .

. . . Open Q&A