Workshop Overview

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Industry Challenges

• Authoritative data
  - Produce data you can trust
  - Share and exchange – regardless of its source

• Good, fast, and cost-effective
  - Improve the speed and accuracy of your data / maps
  - Streamline workflows for efficiency

• Commercial-off-the-shelf solution:
  - Configure to needs
  - Eliminate custom code or scripts
Esri Production Mapping

- Meet the standards set by an organization
  - High quality databases and cartographic products

Enhanced Editing Tools
ArcGIS Data Reviewer
Cartographic Production Tools
ArcGIS Workflow Manager & Task Assistant Manager
Product Library
Resource Center
The Data and Map Production Workflow

- Collect and Inventory Data
- Database Design
- Load Data
- Capture, Edit and Maintain
- Derive Cartographic Data
- Manage Workflow & Tasks
- QA/QC
- Output and Disseminate
- Store and Manage
Manage workflows at multiple levels

- Define your workflows
- Macro – link to multiple systems at a high level
- Micro – tasks inside of ArcMap
Workflow Manager

- Define and enforce standard workflows
  - Ensure consistency across an organization
- Create and assign units of work (jobs)
  - Assign resources
  - Automate tasks
  - Notify users of pending work
- Track and manage status of work
Task Assistant Manager

- Standardize workflows in ArcMap
- Promotes sharing of knowledge
  - Communicate best practices
- Automated tasks
- Provides consistency and efficiency
Demo: Managing workflows
Data loading and editing
The Data and Map Production Workflow

1. Collect and Inventory Data
2. Database Design
3. Load Data
4. Manage Workflow & Tasks
5. Capture, Edit and Maintain
6. Derive Cartographic Data
7. QA/QC
8. Store and Manage
9. Output and Disseminate
Available databases

- Resource center has data models for specific industries
  - Electric and Gas Utilities
  - Water\Wastewater
  - Transportation
  - Local Government
  - Telecommunications

- Use your own
  - Esri Production Mapping is configurable
Data loading

- Efficient loading of data into database
  - Multiple sources to multiple targets
- Convert data from one schema to another
  - Cross reference database
    - Maps data from source to target
Editing using Production Mapping

- Feature Manager
  - Increase productivity
Editing using Production Mapping

- **Feature Manager**
  - Increase productivity
- **On-the-fly validation**
  - Reject noncompliant data
Editing using Production Mapping

- Feature Manager
  - Increase productivity
- On-the-fly validation
  - Reject noncompliant data
- Attribute management
  - Field configurations
Editing using Production Mapping

- Feature Manager
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- On-the-fly validation
  - Reject noncompliant data
- Attribute management
  - Field configurations
- Feature level metadata
  - Captures information when creating or modifying a feature
Product Library

- Stores editing business rules
  - Database validation
  - Attribute management
  - Feature level metadata
- Geodatabase
- Connect to production database when editing
Additional editing tools

- Composite templates
  - Create multiple features with one sketch
Views

- Save and retrieve data frame and layer properties
- Stored and managed in a geodatabase
- Quickly load layers in table of contents
Demo: Feature Extraction
Quality Control
The Data and Map Production Workflow

1. Collect and Inventory Data
2. Database Design
3. Load Data
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6. Manage Workflow & Tasks
7. QA/QC
8. Output and Disseminate
9. Store and Manage
When to perform quality control

- Before data loading
  - QC the data in the source prior to loading
- Receiving data from contractor/co-producer
  - QC the data upon arrival and notify sender of errors
- Extracting or editing data
  - QC edits for accuracy
- Hard copy map review
ArcGIS Data Reviewer

- Automated quality control
  - Geometry checks
  - Attribute checks
- Visual quality control
- Errors centrally managed and tracked
  - Reviewer workspace
  - Reviewer table
Automated checks

• 42 automated checks
  - Configure to ensure specification

• Batch Jobs
  - Automated running of multiple checks
  - Quality control model
    - Available for supported data models
    - Established to ensure data standards
  - Easily distributed
Visual Review Tools

- Single features
  - Commit to Reviewer table
Visual Review Tools

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- Browse a selection set
Visual Review Tools

- Single features
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- Missing features
Visual Review Tools

- Single features
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- Browse a selection set
- Missing features
- Sample check
  - Browse randomly selected features
Visual Review Tools

• Single features
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• Browse a selection set
• Missing features
• Sample check
  - Browse randomly selected features
• Reviewer Overview Window
  - Systematic visual review
Demo: ArcGIS Data Reviewer
Cartographic production
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Product Library

- Multiple maps and multiple users
- Check out/Check in map documents
- Exclusive locking
  - Prohibits two people from editing map at the same time
- Version history maintained
Design cartographic reference grids

- Grids and Graticules Designer
  - Edit existing template
  - Create a new template
Symbology rules

• Visual specifications
  - Created for specific map products
    - Standardize and reuse
  - Batch symbolize data
  - Uses predefined representation rules
Cartographic production tools

- Dynamic table generation
  - Update based on data in current extent
Cartographic production tools

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- Database element library
  - Store and share layout elements
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- Manage elements in the Layout window
  - Centralized layout management
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- Layout and data frame rules
  - Enforce standards

**Layout Rule for Legend**
Horizontal rule: Legend 2cm left of page
Vertical rule: Legend 3cm above page bottom

**Data Frame Rule**
Scale: 1: 50k
Size: 35cm x 50cm
Rotation: True north
Coordinate system: UTM zone
Demo: Cartographic Production
Additional Resources and Questions

• Esri Production Mapping
  - http://resources.arcgis.com/content/esri-production-mapping/10.0/about
  - White papers
  - System requirements
  - Success stories
  - Free 60-day trial

• Training
  - http://training.esri.com

• Workshop evaluations
  - www.esri.com/sessionevals