ArcGIS Workflow Manager
An Introduction

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Session Topics

- Introduction to ArcGIS Workflow Manager
- Defining and executing workflows
- Integrating workflows with ArcGIS
- Tracking and reporting progress

- Demonstrations
- Questions
What is ArcGIS Workflow Manager

- Enterprise workflow management application
  - Manages organization-wide projects
  - Integrates GIS and non-GIS workflows
What is ArcGIS Workflow Manager

Allows users to:

• Plan and create workflows efficiently
• Execute and manage standardized workflows
• Evaluate and improve performance continuously

A framework for continuous process improvement
Workflow Manager System Framework

- Server
  - Web APIs
    - ...Standard or higher

- Desktop
  - Administrator
  - Application
    - ...Standard or higher

- Geodatabase
  - Geospatial Data
    - Web applications
Defining your Business Processes
Defining Workflows

• How do I “model” my business processes?

• Using 3 steps
  - Outline steps to represent activities
  - Connect steps with paths to define the flow
  - Update step and path properties to improve efficiency
Outline Steps

- Break down business process into activities
- Translate activities into workflow and step types
Connect Steps

- Steps are connected by defining their paths
  - Paths can be conditional
- Document

Diagram:
- Collect data
  - Load Data
  - Edit Data and Map
  - Perform Quality Check
  - Create Output

Diagram Flow:
- Step
- Path
- Connect Steps
Update Step and Path Properties

- Preset default behavior on steps and paths
Utilizing your Business Processes
Executing Workflows

- How do I make these processes operational?
  - Associate workflow to job type
  - Create a job (an instance of the workflow)

- Examples:
  - Evaluate a new development plan
  - Create a 1:50,000 scale map product for a specific area
Accessing Jobs

- Queries
- Search
- List / Map view
Components of a Job

- Activity Log
- Resource
- Geodatabase Version
- Geographical Area of Interest
- Descriptive Information
- Workflow
Job Component: Descriptive Information

• Standard
  - Name, due date, priority, etc.

• Extended
  - Custom, business specific
  - For e.g. Plan Number, Department, Permit ID
Attachments and Notes

- **Attachments**
  - Files supporting a job

- **Notes**
  - Free form text
  - Miscellaneous information
Job Component: Resource

- Assign resource to job or individual step
  - User
  - Group
- User can belong to multiple groups

- Collect data
- Load Data
- Edit Data and Map
- Perform Quality Check
- Create Output

GIS Analyst
Jim Smith
Cartographer
QC Analyst
Cartographer
Application Privileges

• Enables access to functionality
  - Examples:
    - Create Job
    - Assign Job
    - Delete Job

• User group links privileges and user
Job Component: Area of Interest

- Spatial component of job
  - Defines work location for users
  - Can restrict edits to given area
Step Descriptions

- Documents the current task
  - HTML-based
  - Link to any URL or design your own
Workflow Execution Tools

• Tools to navigate and execute workflow

• Progression defined via Paths and Step Properties
  - Branching
  - Required steps
  - Automatically executed steps
  - Automatic reassignment of job
Holds and Dependencies

- Holds
  - Suspension of job
  - Prevents step execution
- Dependencies
  - Restricts job execution
  - Models relationships between jobs

Collect data
Load Data
Edit Data and Map
Perform Quality Check
Create Output

! HOLD for Resource
Job Management
Integrating ArcGIS with your Business Processes
ArcGIS in your Business Processes

- Manage your geodatabase
  - Versioning
- Standardized editing
- Automate advanced GIS tasks
  - Batch execution
  - Create map templates
Version Management

- Automate version creation
- Associate version with task/job
- Automate clean up of unused versions
Data Management

- Access data from multiple geodatabases
- Control user access to database
- Associate editing version with job
- Simplify user experience when working with versions

... access the right data at the right time
Map Document Management

- Associated and persisted with job
- Predefined layers and symbology
- Shared by all users working on the job
ArcMap Integration

• Step to launch ArcMap in preconfigured state
  - Predefined layers and symbology
  - Zooms to job’s area of interest
  - Load Task Assistant Manager documents
Task Assistant Manager

- Standardize steps in ArcMap
- Promotes sharing of knowledge
  - Communicate best practices
- Automated tasks
- Provides consistency and efficiency
ArcMap Integration

• Access to entire workflow within ArcMap
  - Manage steps
  - Set current job
• Use Job Information window to
  - Update properties
  - Add notes, attachments
  - Execute current steps
  - View history
Feature Tracking

- Extends geodatabase archiving
- Investigate edits that happened on jobs
- Revert changes to features
Geoprocessing Tools

- Step to launch geoprocessing tools
  - Automation
  - Standardization
  - Increased productivity
- Workflow Manager Toolbox
Tracking your Work Progress
Why Track Progress?

- Enhance communication
- Route work to appropriate resource
- Identify problem spots within workflow
- Provide real time status to stakeholders
Notification

• Email notifications
  - Job action
    - Job Created
    - Job Assigned
  - Workflow step
• Fully configurable
Spatial Notifications

- Triggered by feature edits
- Create rules for changes to:
  - Feature class
  - Features
  - Geographic area
Job Component: History

• What’s happened on this job?
• Tagged with user and date
• Supplemented with user input
Reporting Job Information

• Report on resource allocation, job status, etc.
• Information stored in central geodatabase
• Present contents of repository using:
  - Built-in reports
  - Web charts
  - 3rd party reporting
Tracking and Notification
Summary

- Translate business objectives into practices
- Integrate business systems
- Effectively manage projects and resources
- Streamline and automated production processes

The right work, completed the right way, by the right person, at the right time
Where We Are

- Geodatabase Management and Web Islands
  - Today until 6:00 pm
  - Tomorrow 9:00 am – 6:00 pm
  - Thursday 9:00 am - 1:30 pm
Other Sessions

- **Workflow Manager: Advanced workflows and concepts**
  - Thursday 1:30 – 2:45 in Room 04

- **Demo Theaters**
  - Understanding the ArcGIS Workflow Manager Web APIs
  - Integrating GIS Workflows with other Business Systems Using ArcGIS Workflow Manager
  - Extending the ArcGIS Workflow Manager Sample Web Applications
  - Leveraging Geoprocessing inside your workflows using ArcGIS Workflow Manager
  - Managing a distributed workforce with ArcGIS Workflow Manager
  - Working with ArcGIS Workflow Manager Administrator Utilities
Resources

• Product Page
  - http://esri.com/workflowmanager

• Resource Center

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

• Forums
  - http://forums.arcgis.com/
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