Session Topics

- Overview
- Configure & Design
- Notify & Relate
- Integrate & Analyze
Overview
What is ArcGIS Workflow Manager?

Configure & Create — Execute & Manage — Evaluate & Improve

WORKFLOW MANAGER PROCESS

A framework for operational efficiency
Workflow Manager System Framework

ArcGIS Workflow Manager: Advanced Topics
Anatomy of a Job

Descriptive Information

Activity Log
Geodatabase Version/Geospatial Data

Resource

Workflow

Geographic Location of Interest
Software Demonstration
Vegetation Growth Encroaching Rail Line?

Production Manager
Create a Workflow and Job
- Workflow to update a vegetation boundary
- Assign the job to the GIS Specialist

GIS Specialist
Edit the Data and Notify Field
- Update the vegetation boundary
- Notify Field Crews of pending work
- Send data to field to assist

Field Crew
Perform Field Work and Mark Job as Complete

Business Manager
View Job Progress, History, and Reporting
Software Demonstration
Vegetation Growth Encroaching Rail Line?

Production Manager

Create a Workflow and Job
- Workflow to update a vegetation boundary
- Assign the job to the GIS Specialist

- Identify issues in the current workflow
- Add new steps
- Reconfigure existing steps and paths
- Configure notification and extended properties
- Use geoprocessing script to automatically make decisions
- Update and simplify workflow
- Update job type
Demo Recap

Scenario
Persona
Configure
Workflow Manager Administrator Roles

- Basic Administrator
- Workflow Author
- Workflow Developer
Basic Administrator
Workflow Developer

Python
ArcPy

COM
C#

JavaScript
Designing Workflows

- Step type library
  - Procedural (Manual)
  - Ask question
  - Run executable
  - Open file
  - Launch URL
  - Custom

- Execution paths
Designing Workflows

Create Workflow

Start -> Check Version

Version Exists -> Create version

Version Exists -> Notify

Create version -> Clip Imagery

Clip Imagery -> Inventory Update

Inventory Update -> Edit Data

Edit Data -> QC Data

QC Data -> Notify

Prepare -> Documentation

Documentation -> Notify
Designing Workflows
Configuring Job Types

Workflow

Job Type

Maps

Properties
Demo Recap

Edit workflow
Edit step and path
Export map from Pro
LOI base map
Notify and Relate
Notifications

Spatial

Email Alert

Job
Utilizing Tokens

[EMAILOF([JOB:ASSIGNED_TO])]

john1234@esri.com
Token Parsers

- Job Properties
- Extended Properties
- System Properties
- Environment Variables
- Function
- Spatial Notification
Advanced Workflow Modeling
Child Jobs and Dependencies

Collect Data
Create Map
Advanced Workflow Modeling
Child Jobs and Dependencies

Create Map → Collect Data 1 → Collect Data 2 → Collect Data 3 → All Jobs Closed → Create Map
Restrict Editing

• Restrict selection or editing of features near or within a job’s area of interest
Demo
Notifications
Tokens
Job Relationships
Demo Recap
Notifications
Tokens
Child job step
Integrate and Analyze
Integrating Business Data

- Business-specific data
- *One-to-One* or *One-to-Many* relationships
- Geodatabase tables
- Long integer field joins to job ID

**Custom Properties**
- Parcel ID
- Station ID
- Meter Number
- Vessel ID
- Surveyor Info

ArcGIS Workflow Manager: Advanced Topics
Integrating Business Data
Configuring Extended Properties

Create table in geodatabase

Add as extended property table

Configure properties for job type

Extended Property Display Types
- Date
- Text
- GIS Dataset
- Files
- Folders
- Value List
Advanced Workflow Modeling
Geoprocessing Steps & Tools

- Run GP tools from steps
  - Provide parameter at runtime
  - Use pre-defined parameters
  - Output automatically drives workflow

- Invoke GP services

- Workflow Manager Tools
Advanced Workflow Modeling
Python API

- Repoint Map Templates
- Manage Extended Properties
- Manage Attachments
- Manage Holds and Dependencies
- Execute Steps
- Manage Job Maps
- Create Customized Jobs
- Manage Job Properties
- Trigger Notifications
Advanced Workflow Modeling
Python API

Access ➔ Configuration, Jobs, and Tools

Edit ➔ Configuration and Jobs

Execute ➔ Jobs
<table>
<thead>
<tr>
<th>Tools</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workforce</td>
<td>Create Workforce assignments from Workflow Manager</td>
</tr>
<tr>
<td>Collector</td>
<td>Create Feature Service for collection and distribute the URL using Workflow Manager</td>
</tr>
<tr>
<td>Operations View Widgets</td>
<td>See the status of jobs in your organization</td>
</tr>
<tr>
<td>Web AppBuilder Widget</td>
<td>Create Workflow Manager jobs</td>
</tr>
</tbody>
</table>

Compatibility with ESRI Apps

Samples available on Github

ArcGIS Workflow Manager: Advanced Topics
Demo
Extended Properties
Integrated Geoprocessing
Demo Recap

- Simplify workflow
- More efficient
- Intelligent decision making
Session Recap

• Overview
• Administrator Roles
• Design and Configure Workflows
• Notifications and Tokens
• Advance Job Modeling and Editing Restrictions
• Integrating Business Data
• Geoprocessing in Workflows
• Python API
Resources

• GeoNet

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

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

• Samples
  - https://github.com/Esri/workflowmanager-viewer-js
  - https://github.com/Esri/workflowmanager-samples
  - https://github.com/Esri/workflowmanager-createjob-widget
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<table>
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<tr>
<th>WORKSHOP</th>
<th>LOCATION</th>
<th>TIME FRAME</th>
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</thead>
<tbody>
<tr>
<td>Thursday, July 12&lt;br&gt;ArcGIS Workflow Manager: Integrate Tasks in Pro and&lt;br&gt;Workforce for ArcGIS</td>
<td>SDCC – Demo Theater 03</td>
<td>12:15 pm – 1:00 pm</td>
</tr>
</tbody>
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ArcGIS Workflow Manager: Advanced Topics