


# ArcGIS Workflow Manager

## An Introduction

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# Our Plan Today

- Reasons for process improvement of GIS and non-GIS workflows
- Overview of ArcGIS Workflow Manager
  - Configure
  - Organize
  - Centralize
  - Execute Workflows
- Additional Resources

The image shows the cover of a book titled 'THE SCIENCE OF WHERE' in large, bold, white capital letters. The cover is black with a white L-shaped graphic element. The title is framed by this L-shape. The background of the cover features a colorful, abstract pattern of geometric shapes in yellow, orange, red, and purple. The Esri logo is visible in the bottom right corner.

**THE  
SCIENCE  
OF  
WHERE**

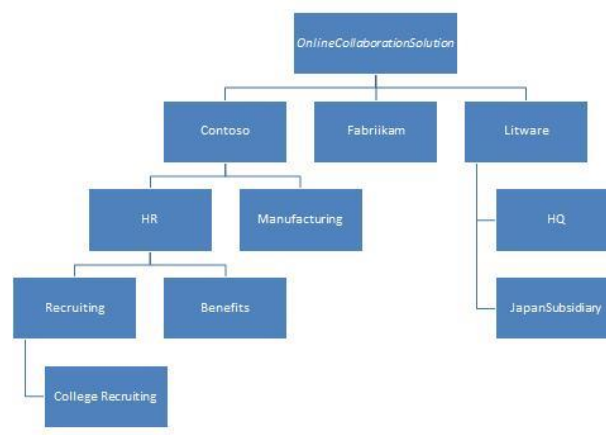
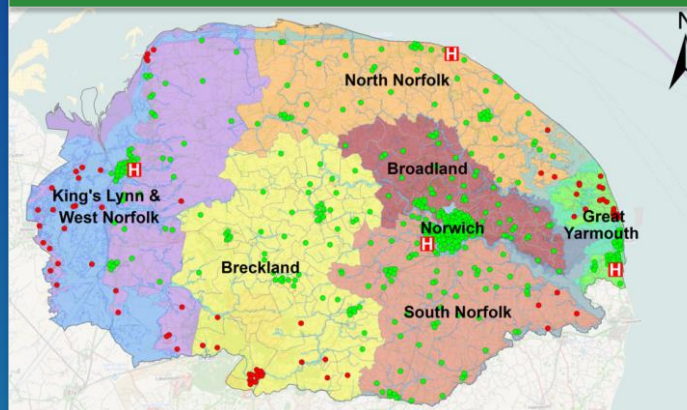


# Our Organizations

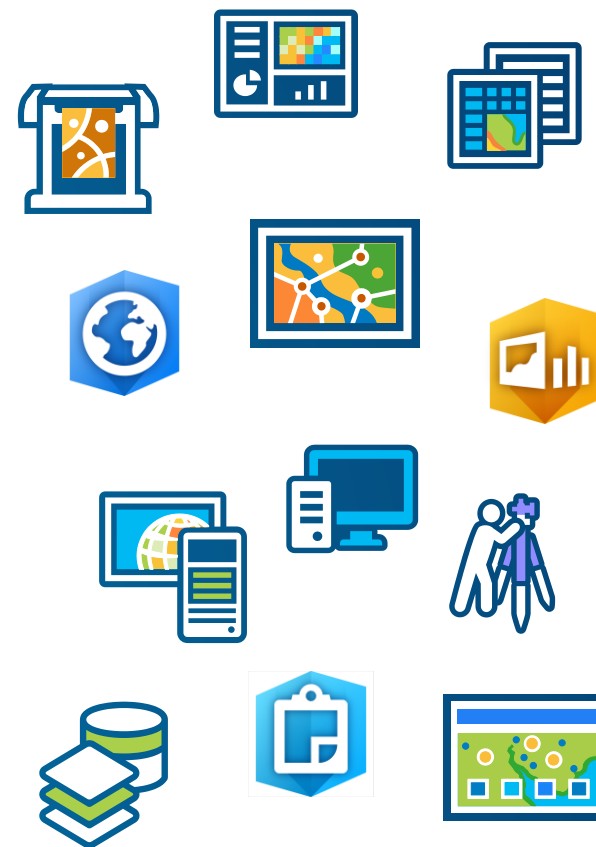
## People



# Processes



## Software/Hardware



# What is ArcGIS Workflow Manager?

|—— Configure & Create ——| |—— Execute & Manage ——| |—— Evaluate & Improve ——|



A framework for operational efficiency

# Benefits of Work Management

**Reduce Risk and Uncertainty**

**Enhance Communication**

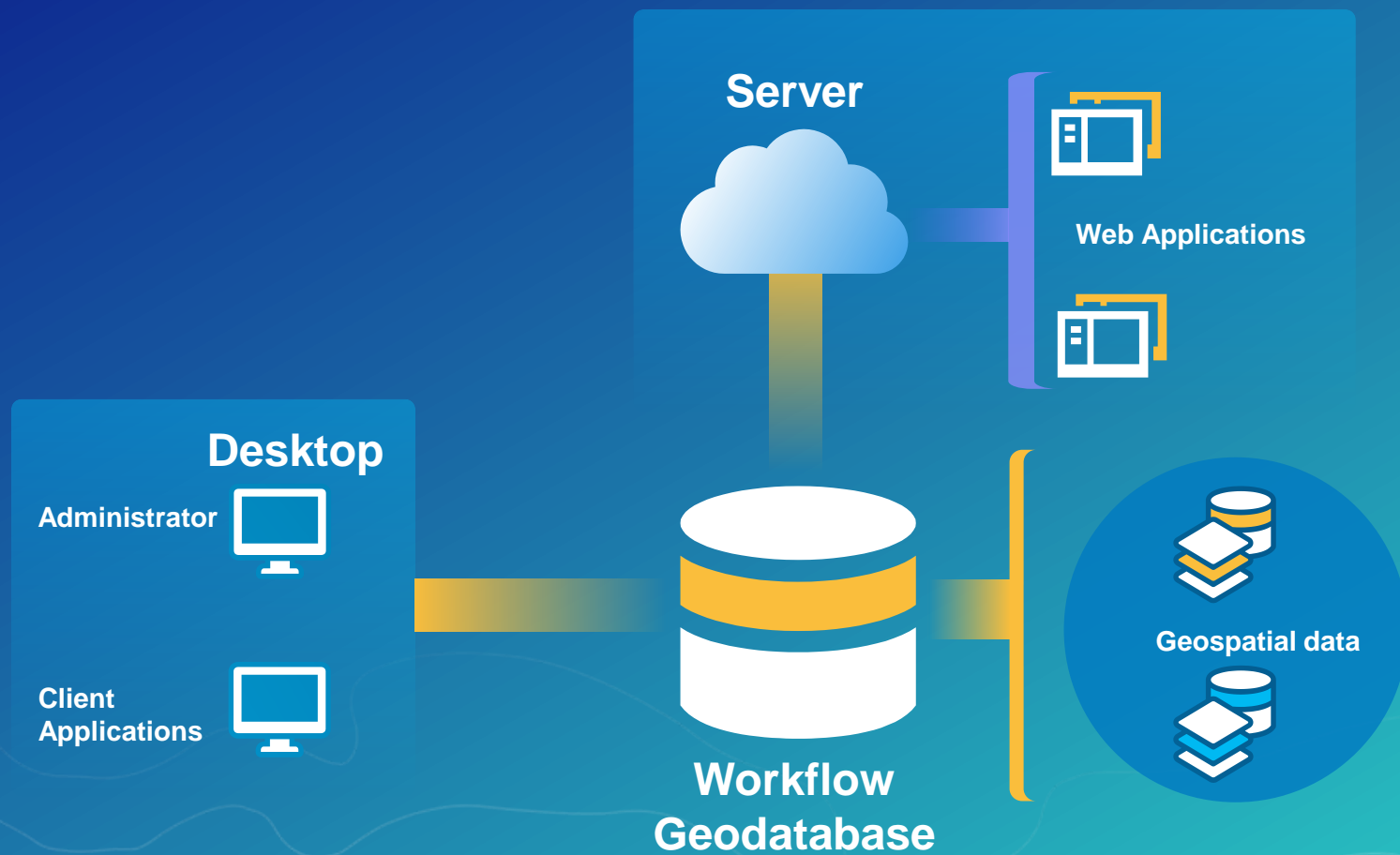
**Improve Data Quality and Accuracy**

**Reduce Production Cost**

**Optimize Resource Allocation**

**Simplify Process**

# System Framework





# ArcGIS Supports the Enterprise

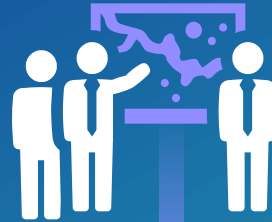
Knowledge Workers



Executive Access



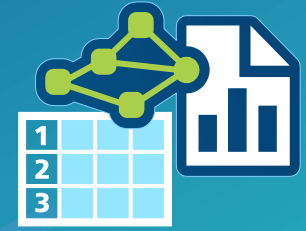
Public Engagement



Work Anywhere



Enterprise Integration



GIS Professionals



**ArcGIS**  
- Workflow management

Web GIS

# Meet the Team!

**Business/  
Product  
Manager**



**Survey  
Manager**



**GIS  
Specialist**



**Field  
Acquisition**



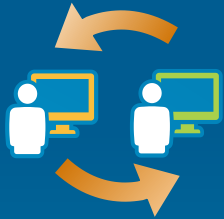


# Key Features



# Workflow

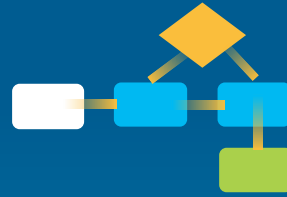
## Manager



User  
Reassignment



Geographical Area  
of Interest



Graphical  
Representation



Data Entry  
Form



Identity  
Based  
Access



Descriptive  
Information



Report  
Generation



Document  
Integration



Geodatabase

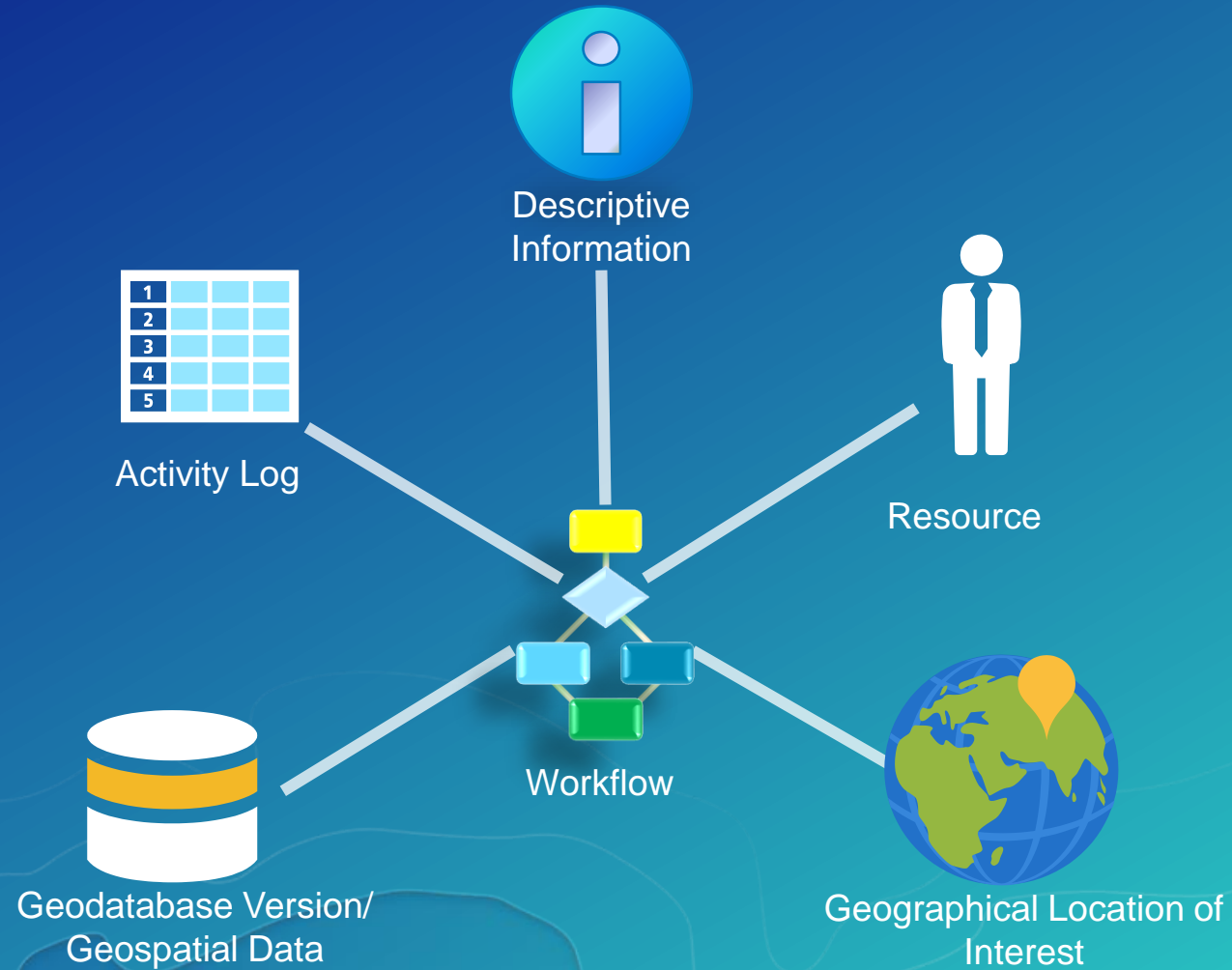


Email  
Notifications



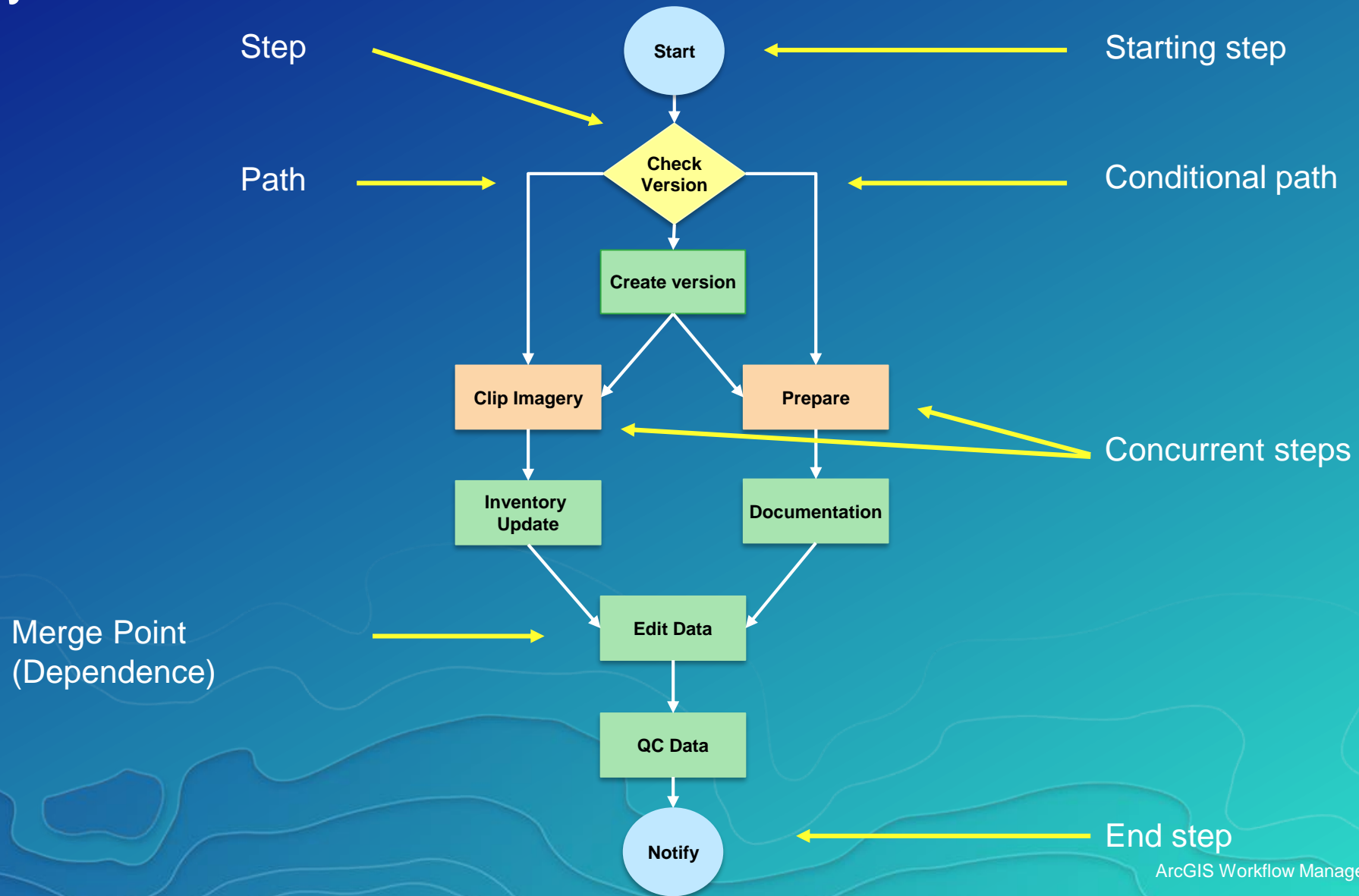
GP  
Processing

# Anatomy of a Job



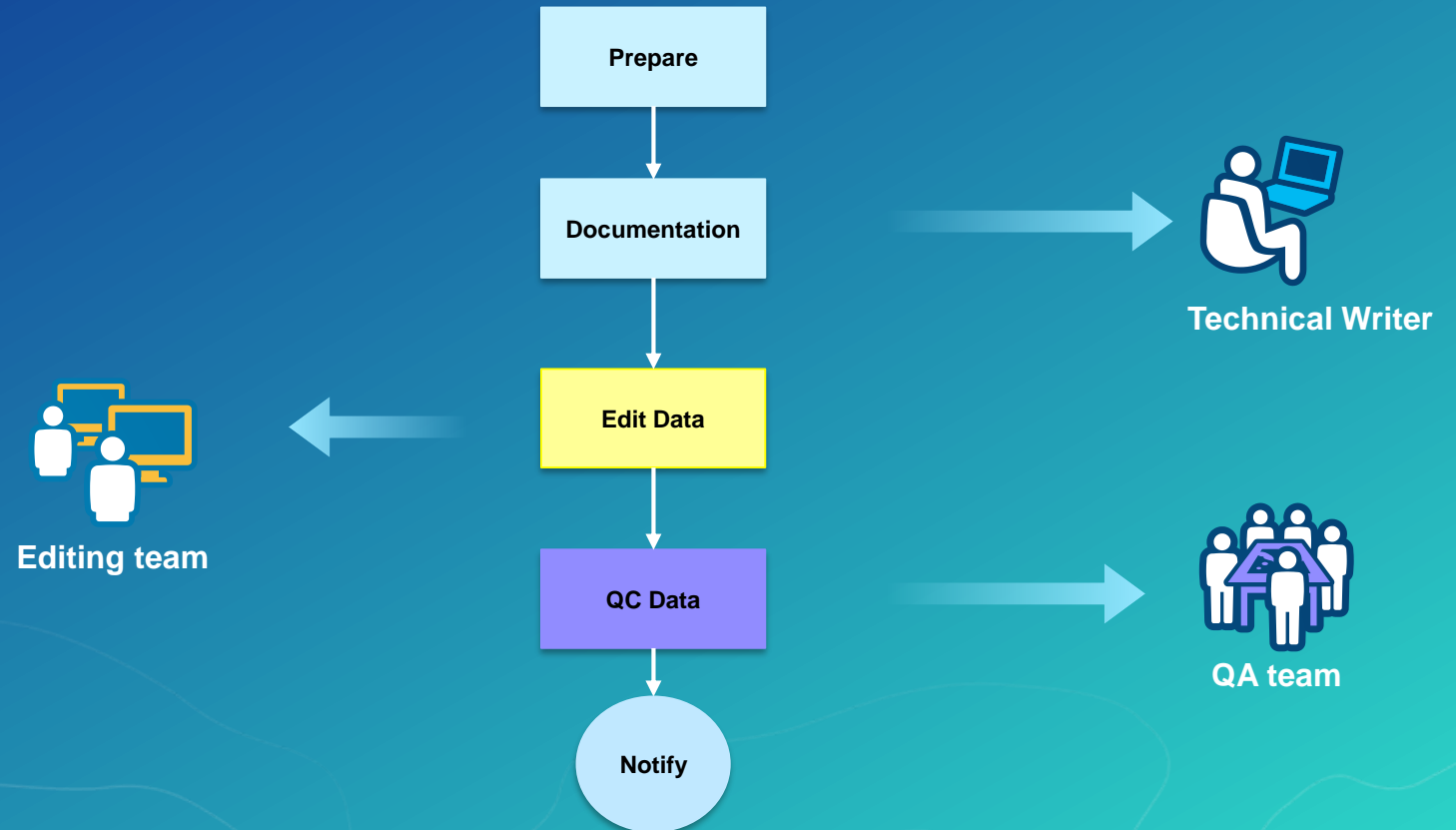


# Anatomy of a Workflow



# Workflow Assignment

- Automatically route work
- Target specific groups
- Varying staff skills
- Manage large teams



# Identity Stores and Credentials

- **Operating System Users**
  - Active directory
  - Manual entry
- **ArcGIS Online/Portal Users**



ACCESS	● ● ● ○ ○
SECURITIES	● ● ○ ○ ○
CAPABILITIES	● ● ● ○ ○





# Workflow Manager Administrator Roles

- **Basic Administrator**
  - Manage configuration items
- **Workflow Author**
  - Designs and authors Workflows
- **Workflow Developer**
  - Extends workflow with custom scripts/code



# Application Access Control

- **Control User actions**
  - Creating jobs
  - Assigning jobs
  - Closing jobs
- **Show/hide functionality**
  - History
  - Map view tab
  - Reports



# Software Demonstration

## Find Properties in a Flood Zone



### Survey Manager

#### Create a Workflow and Job

- Workflow to find properties
- Assign the job to the GIS Specialist



### GIS Specialist

#### Update the Flood Zone

- Update the flood boundary
- Find properties
- Send data to Field to inspect



### Field Crew

Inspect Property and Mark Job as Complete



### Business Manager

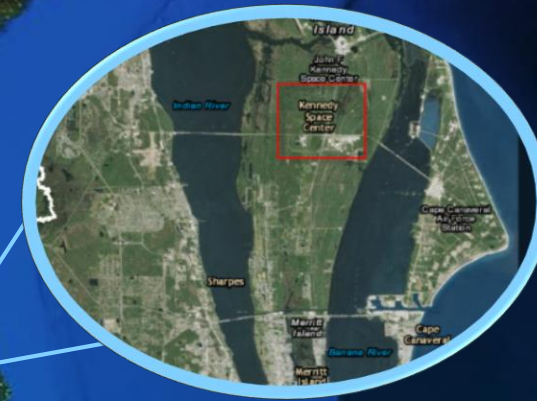
View Job Progress, History and Reporting



# Demo Recap

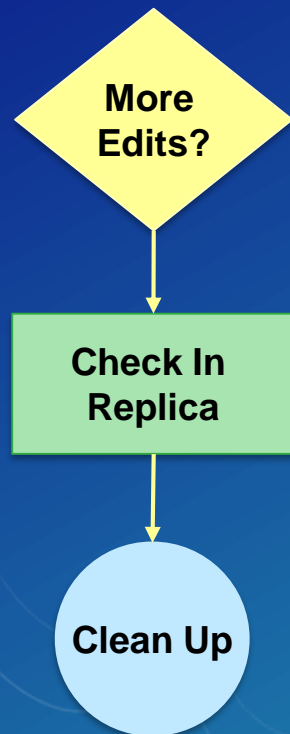
# Geographic Location of Interest (LOI)

- Spatial orientation of all work
- Restrict work to a spatial extent
- Location of Interest can be:
  - Polygon (AOI) or Point (POI)





# Geoprocessing



Clip data  
Check out/in data

Data  
Processing



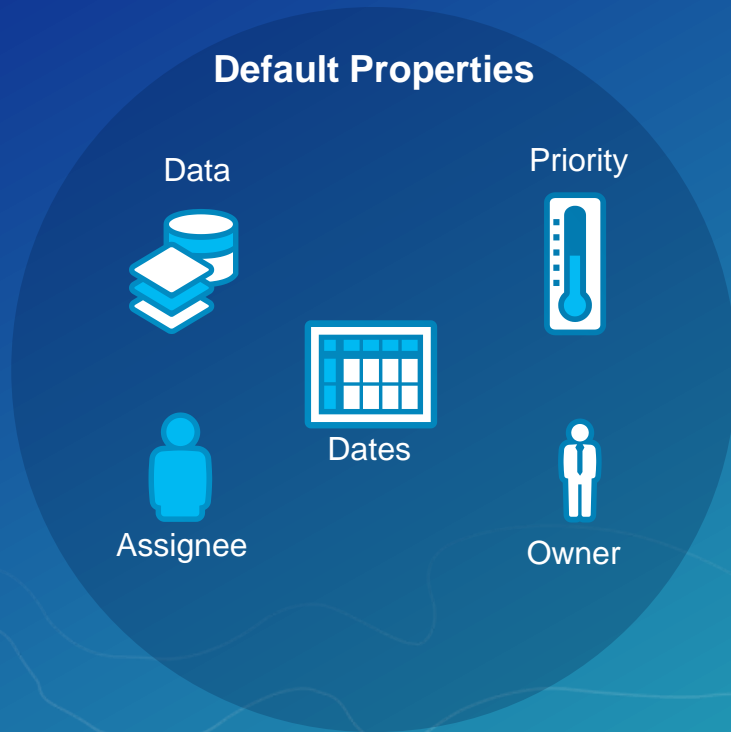
Spatial  
Analysis



Spatial overlay  
Calculate field

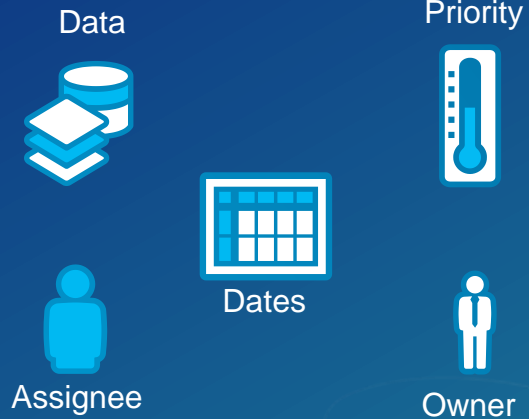


# Default and Custom Properties

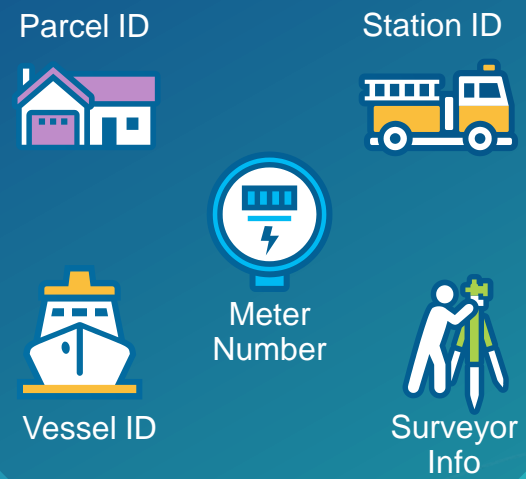


# Default and Custom Properties

## Default Properties



## Custom Properties



# Version Management

- **Automate version management**
  - Create version per job/user
  - Reconcile and post changes



# Version Management

- Automate version management
  - Create version per job/user
  - Reconcile and post changes
  - **Cleanup versions**





# Map Management

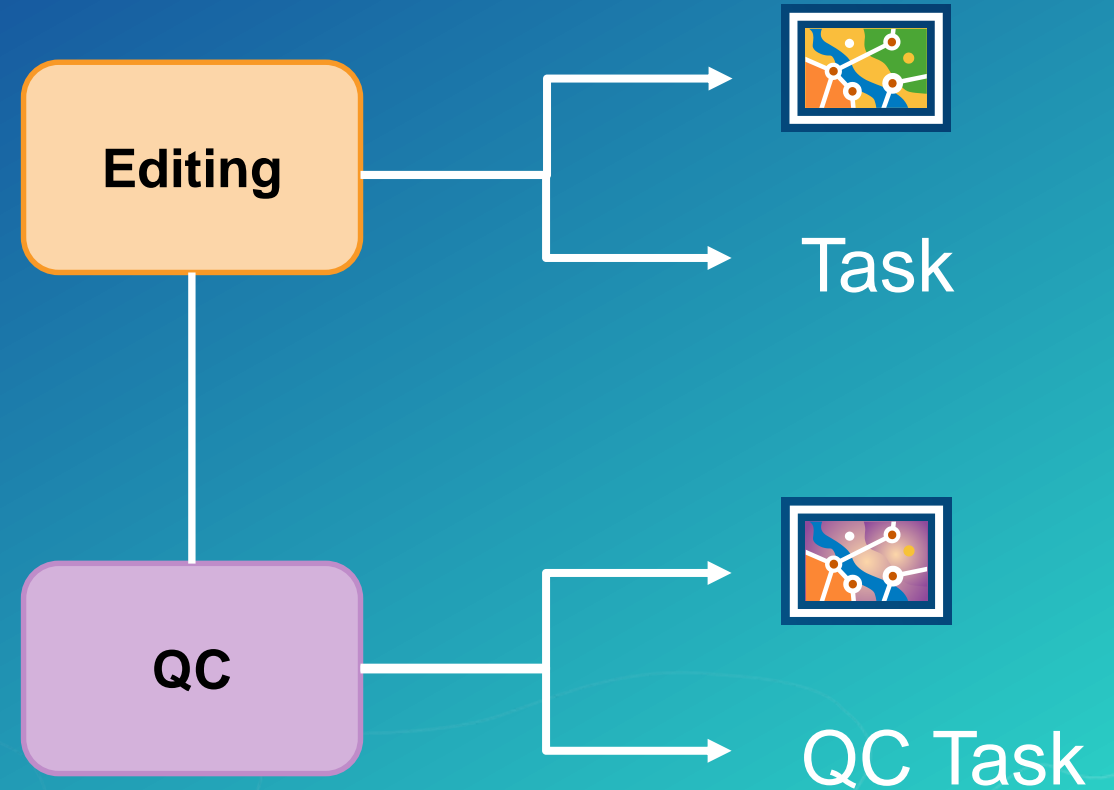
- Step to open a map in preconfigured state
  - Predefined layers and cartography in 2D and 3D
  - Zooms to job's location of interest
  - Update layer source



# Tasks and Workflow Manager

## Micro and Macro workflows

- **Tasks are tailored for repeatable GIS tasks in ArcGIS Pro**
- **Workflows are Enterprise wide**
- **Workflow Manager steps can load Tasks**



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### Field Crew

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### Business Manager

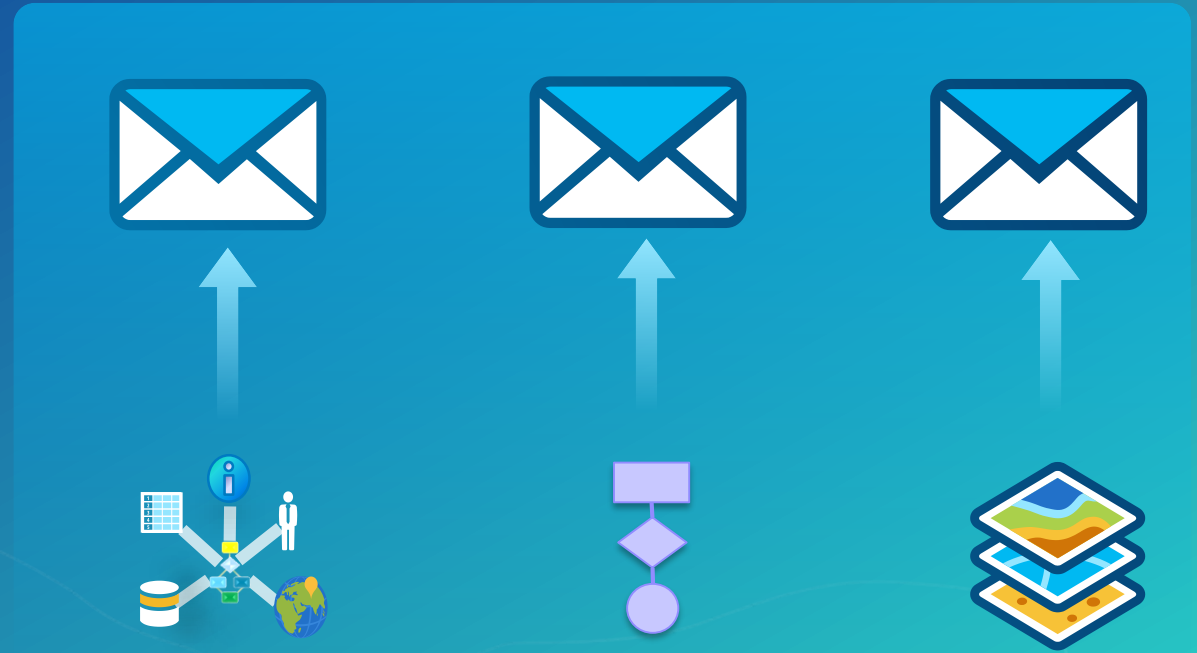
View Job Progress, History and Reporting

# Demo Recap



# Alerts and Notifications

- **Job Notifications**
  - Assign Job
  - Create Job
  - Close Job
- **Workflow Notifications**
  - QC step alert
  - Data received
- **Spatial Notifications**
  - Feature modification



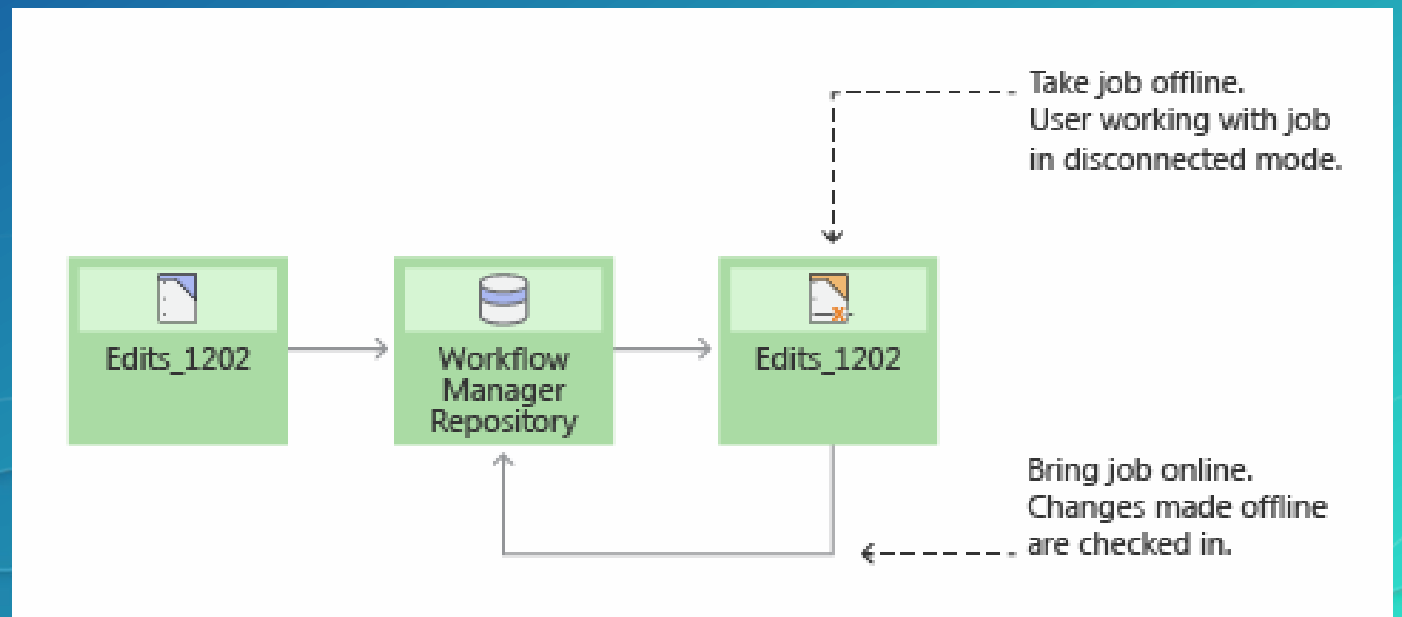
# Document Management

- Attachments are a useful tool
  - Link to Files
  - Link to websites
  - Store items directly in the workflow database



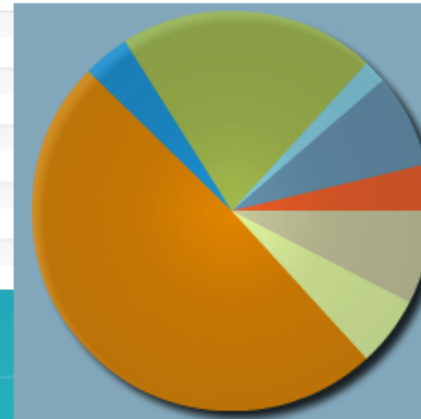
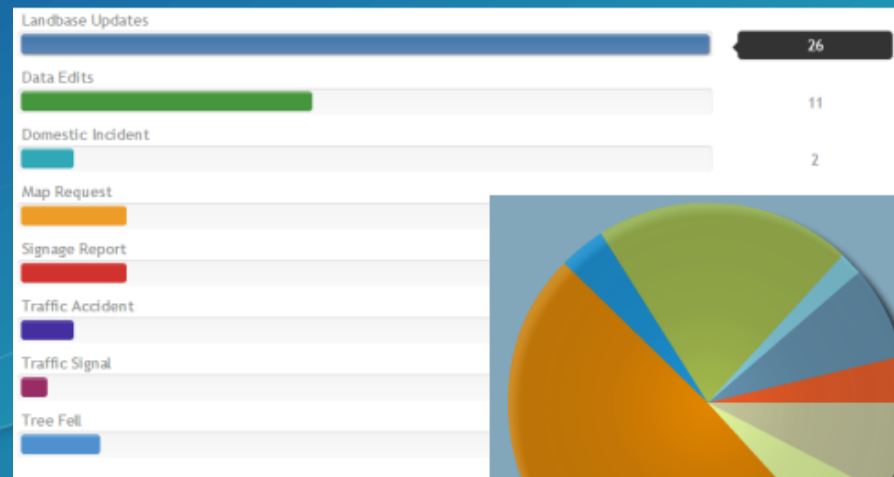
# Offline Jobs

- Consistent workflows across organizations is key!
- Provide documentation for staff in and around
- Support remote staff



# Reports

- One stop shop for all job information
- Built-in reporting capabilities
- Database tables
  - Support additional reporting tools



Percentage Complete	Job Type Name	Total Jobs
7.3625		
	Landbase Updates	1
Overall Total:		1

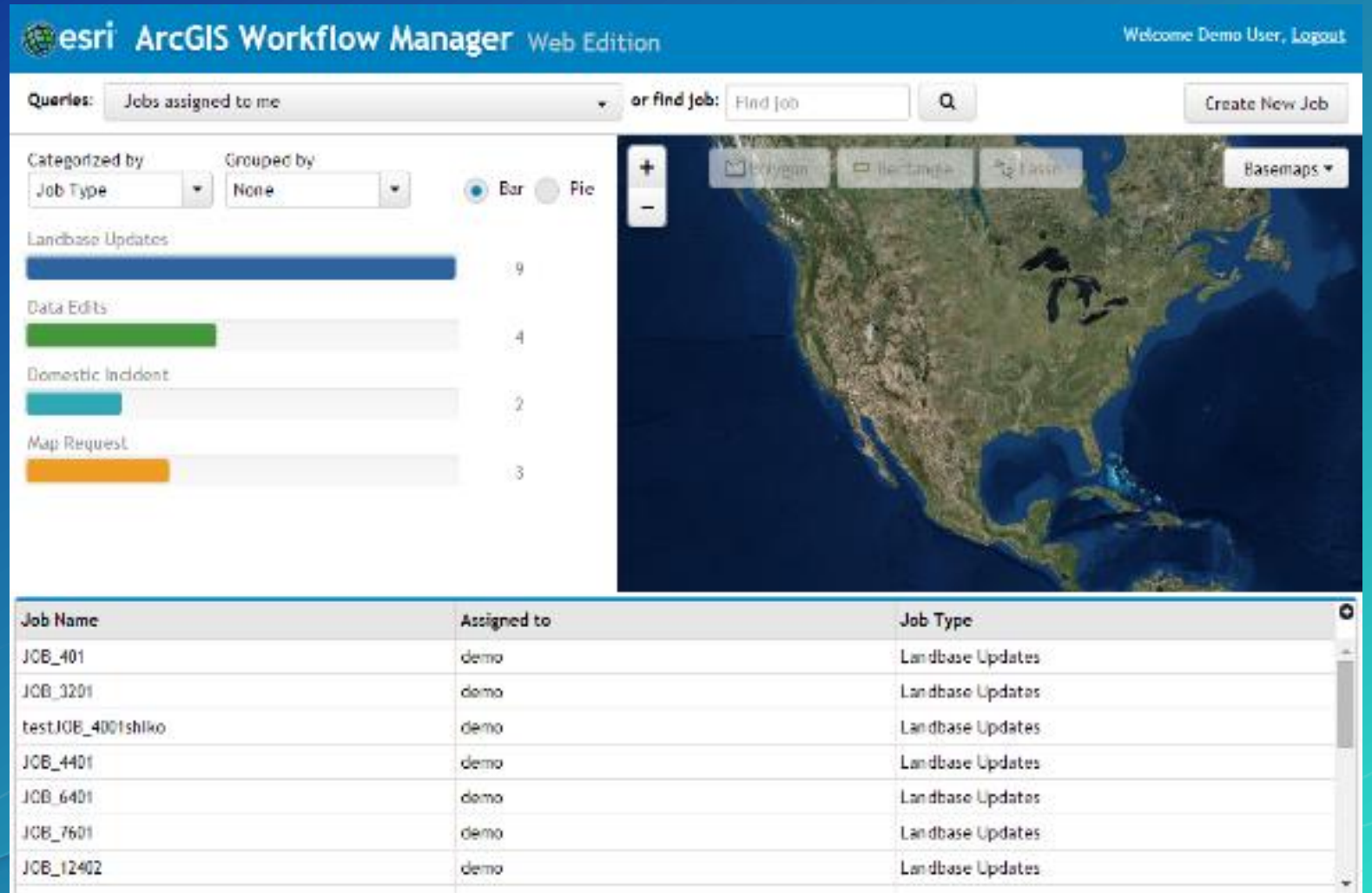
Percentage Complete	Job Type Name	Total Jobs
75		
	Map Request	1
Overall Total:		1

Percentage Complete	Job Type Name	Total Jobs
100		
	Domestic Incident	2
	Landbase Updates	1
	Map Request	2
Overall Total:		5



# Enterprise Offering

- Non-GIS staff
- Ready to use web apps
  - No programming



# Software Demonstration

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### Business Manager

View Job Progress, History and Reporting

# Demo Recap



# Extensibility

## Developer Options

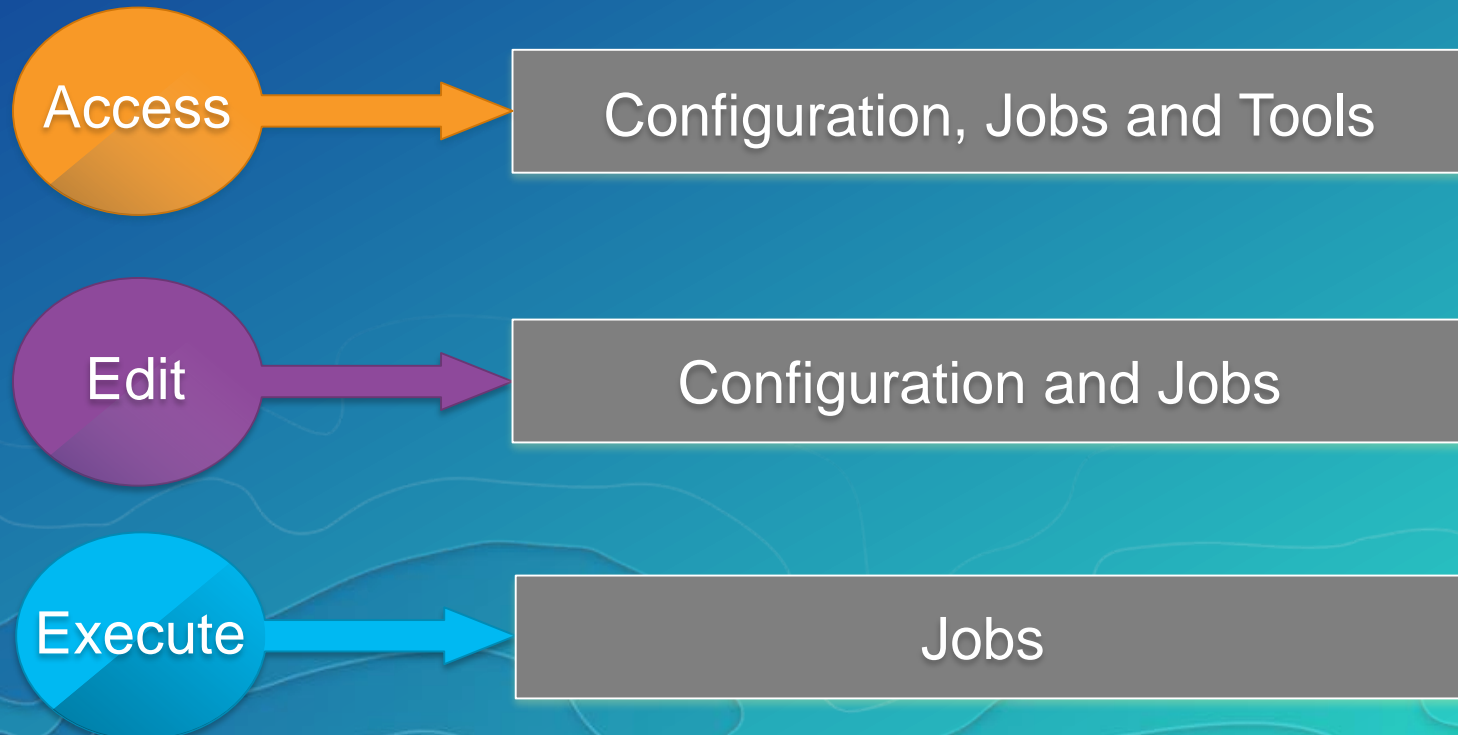
- **Integrate with other systems**
  - Extended Properties
  - Desktop APIs
  - Web APIs
- **Dashboards for GIS Work**






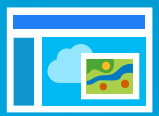


# Workflow Manager Python API

- Automate your business workflow through Python
- Integrate with other Python and Geoprocessing functionality



# Compatibility with ESRI Apps

	Workforce	Create Workforce Assignments from Workflow Manager
	Collector	Create Feature Service for collection and distribute the URL using Workflow Manager
	Operations Dashboard Widget	See the Status of Jobs in your Organization
	Web AppBuilder Widget Coming soon	Create Workflow Manager jobs

**Samples available on Github**

ArcGIS Workflow Manager: An Introduction

# Team – Wrap Up

Project tracking with the  
Javascript Viewer

Ops Dashboard Widget



# Team – Wrap Up

Job Creation, Step Help,  
Task Integration

Standard Workflows and  
Templates





## Team – Wrap Up

GP and Python Integration,  
Extended Properties,  
Version Management



# Team – Wrap Up

Workforce Integration

Embedded Job URLs,  
Email Notifications



# Resources

- **Geonet**

- <https://geonet.esri.com/community/gis/solutions/workflow-manager>

- **Product Page**

- <http://esri.com/workflowmanager>
- <https://server.arcgis.com/en/workflow-manager/>

- **Training**

- <http://training.esri.com/>

- **Samples**

- <https://github.com/Esri/workflowmanager-viewer-js>
- <https://github.com/Esri/workflowmanager-samples>
- <https://github.com/Esri/production-dashboard-js>

# Sessions and Demonstrations

## Tuesday – July 11th

**Esri Production Mapping: Distributed Generalization Workflows**

**12:30pm – 1:15pm    SDCC Demo Theatre 03**

**ArcGIS Workflow Manager: Managing Workflows via the Server Extension**

**1:30pm – 2:15    SDCC Demo Theatre 08**

**ArcGIS Workflow Manager and ArcGIS Workforce Integration**

**4:30pm – 5:15    SDCC Demo Theatre 06**



## Wednesday – July 12th

### **ArcGIS Extensions: Tools for Improving Data and Map Production**

**8:30am – 9:45    SDCC Demo Theatre 06**

### **ArcGIS Workflow Manager: Getting Started with Out-Of-The-Box Templates**

**9:30am – 10:15    SDCC Demo Theatre 06**

### **ArcGIS Workflow Manager: Advanced Topics**

**10:15am – 11:30    SDCC Room 31**

### **ArcGIS Workflow Manager: Integrate Tasks into Your Workflow Process**

**11:30am – 12:15    SDCC Demo Theater 06**

### **ArcGIS Workflow Manager: Integrating Geoprocessing and Python into Your Business Processes**

**3:30pm – 4:15    SDCC Demo Theater 06**

### **Esri Production Mapping: Automate Map Production with ArcGIS Workflow Manager**

**3:30pm – 4:15    SDCC Demo Theater 03**

# Sessions and Demonstrations

**Thursday – July 13th**

**Supporting Daily Workflows with Tools**

**8:30am – 9:45    SDCC - Room 29 A**

**ArcGIS Extensions: Tools for Improving Data and Map Production**

**3:15pm – 4:30    SDCC - Ballroom 06 B**

# Please Take Our Survey on the Esri Events App!

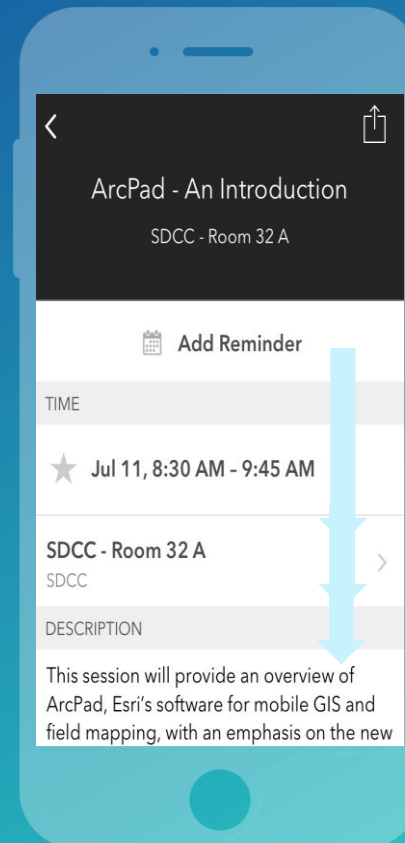
**Download the Esri Events app and find your event**



**Select the session you attended**



**Scroll down to find the survey**



**Complete Answers and Select "Submit"**





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