

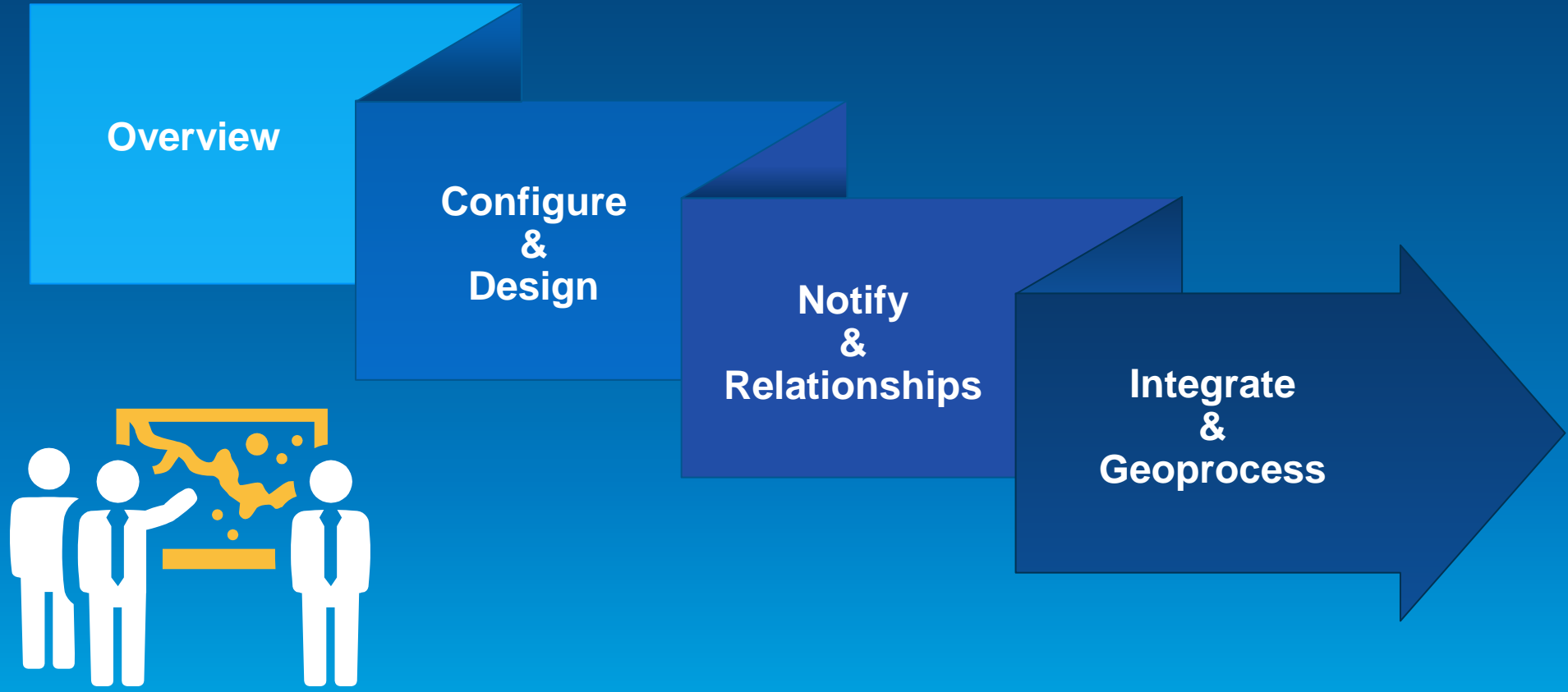


# ArcGIS Workflow Manager: Advanced Workflows and Concepts

Nishi Mishra and Kevin Bedel

Technical Workshop

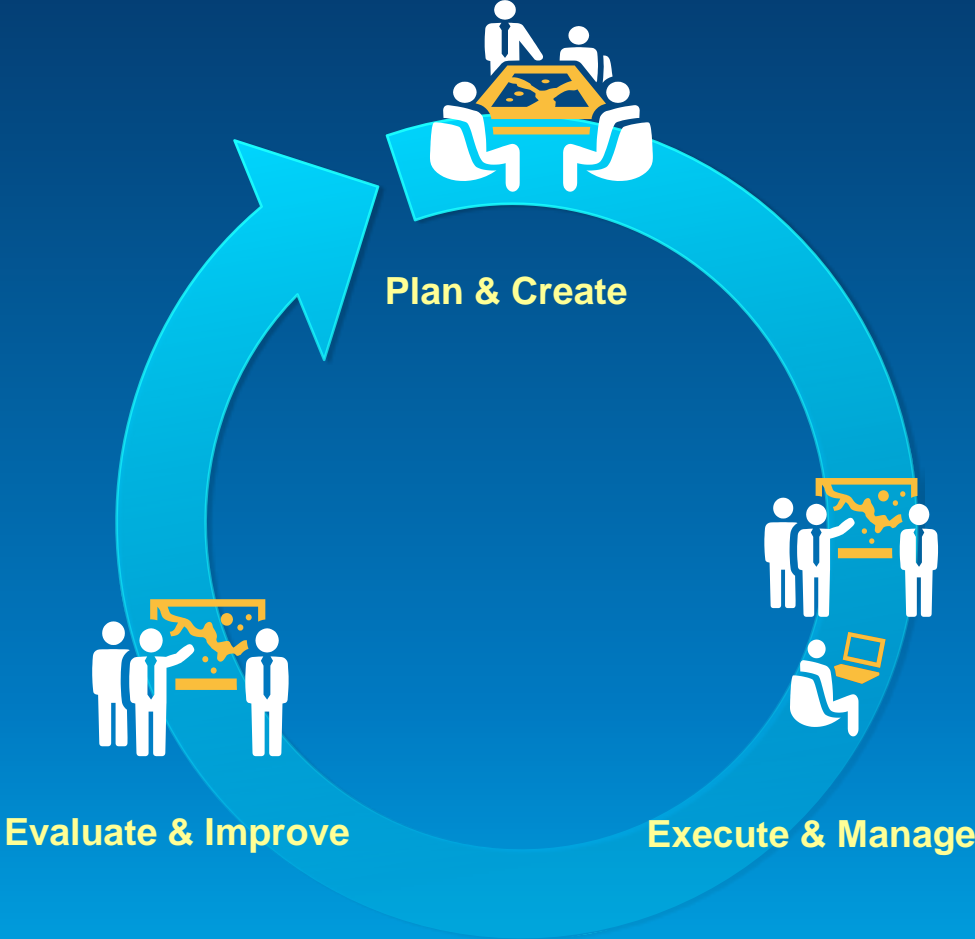
# Session Topics





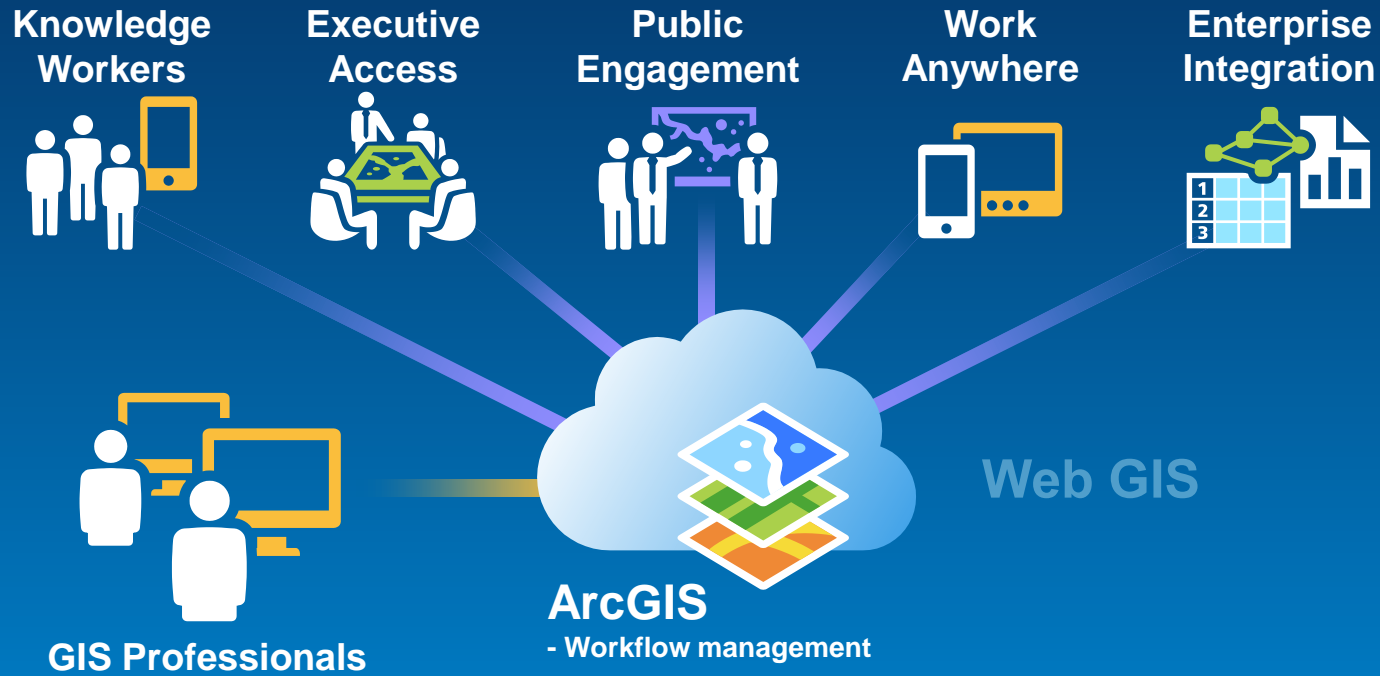
# Overview

# What is ArcGIS Workflow Manager ?



*A framework for continuous process improvement*

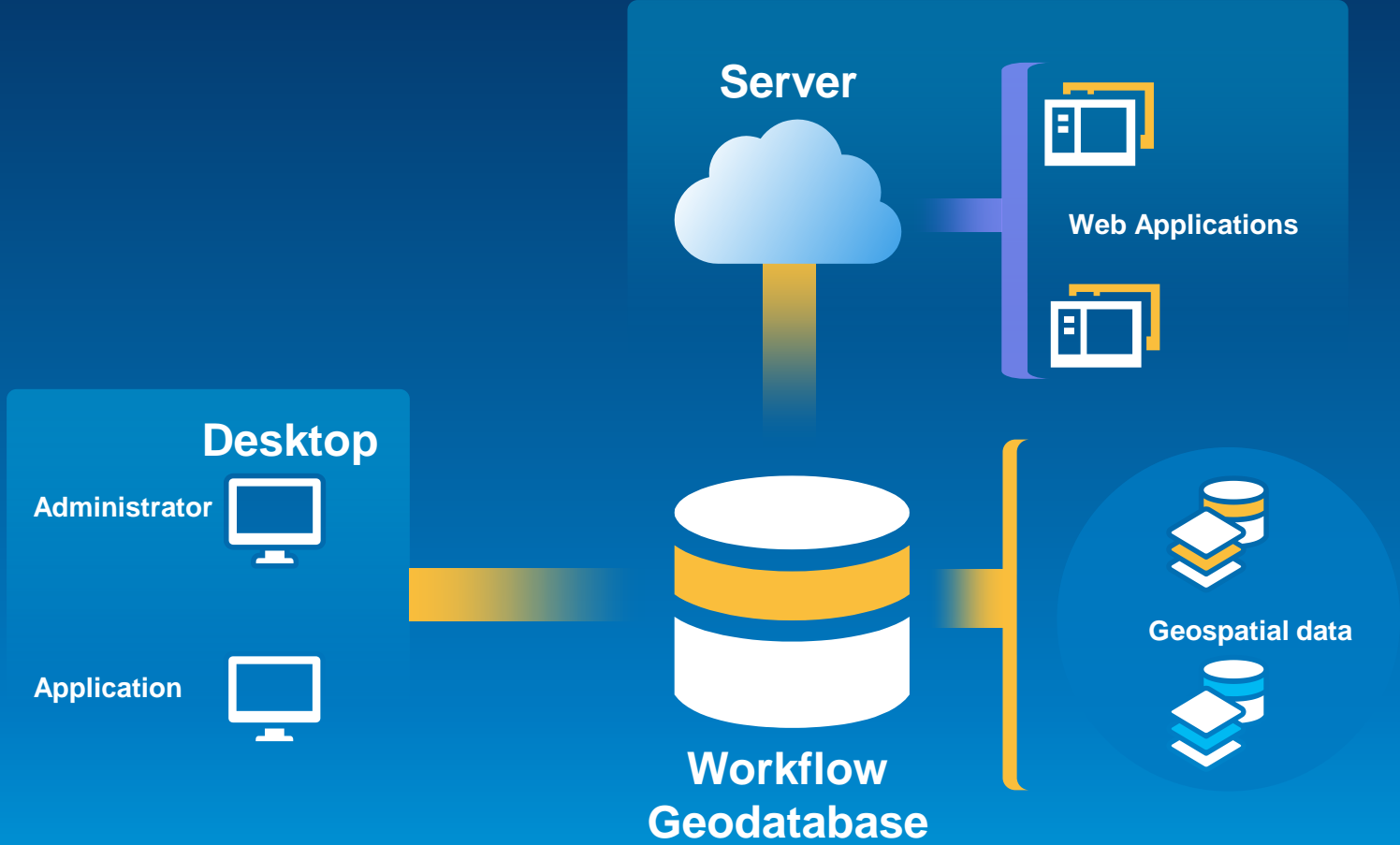
# ArcGIS Supports the Enterprise



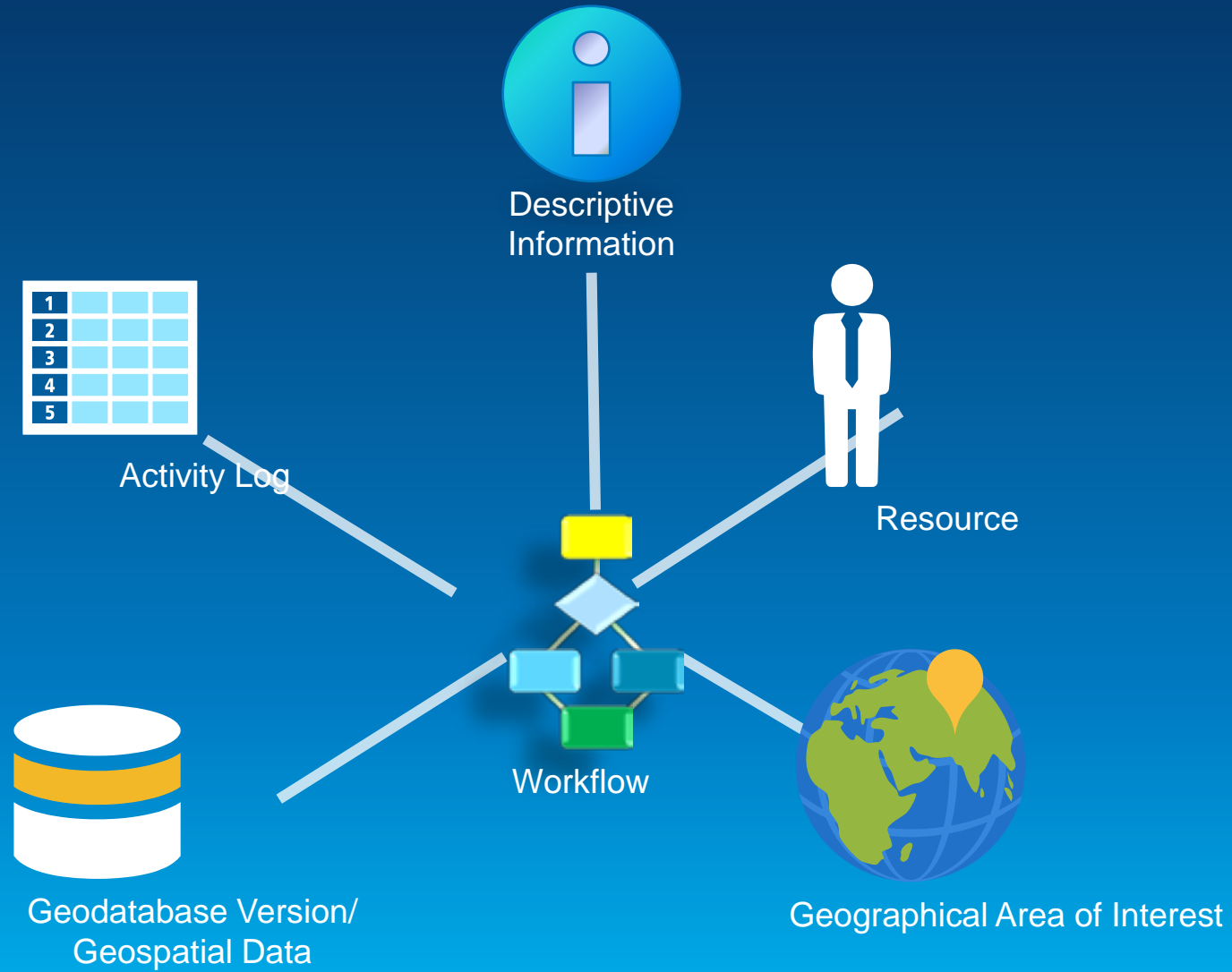
**Making Mapping and GIS  
Available Across Your Organization**

*Transforming the Role of GIS*

# Workflow Manager System Framework



# Anatomy of a job



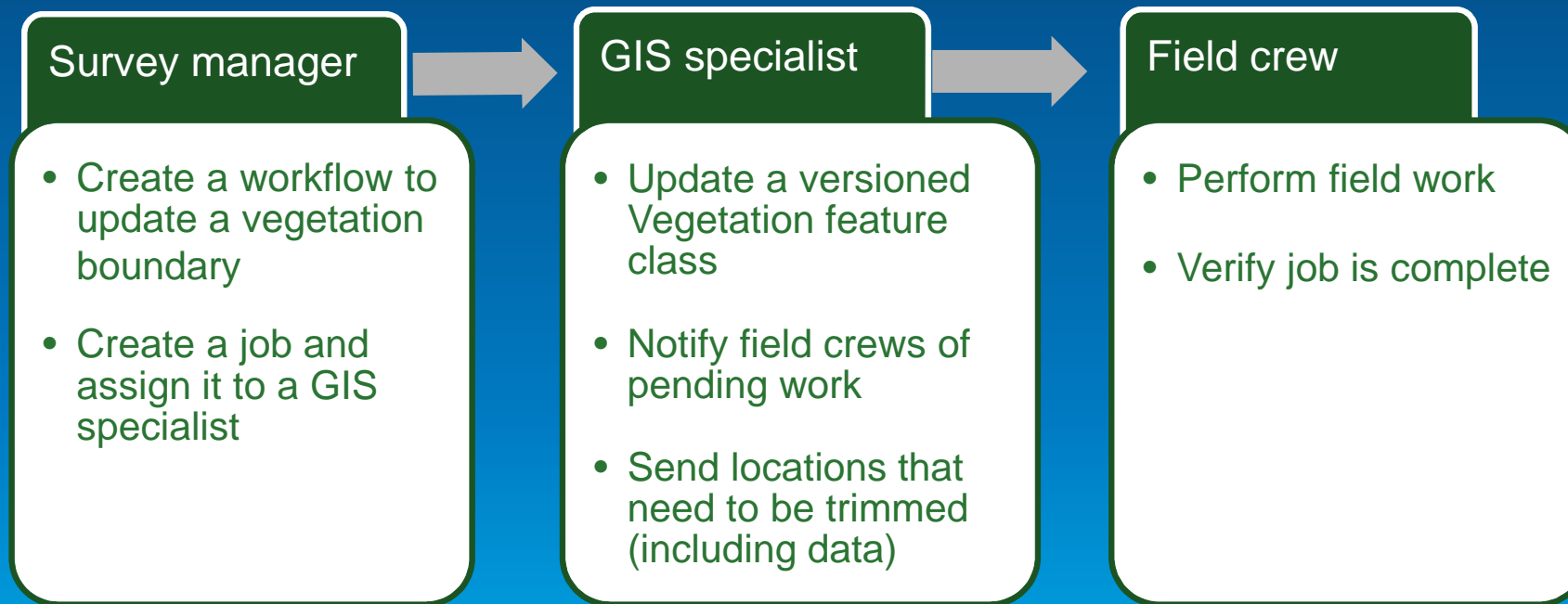
Demo

# Introduction



# Demo Scenario

- Is vegetation growth encroaching on a rail line?



# Configure



# Workflow Manager Administrator Roles

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



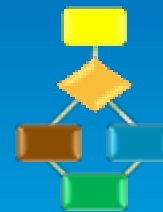
# Basic Administrator

- **Workflows**
- **Geodatabases**
- **Security role management**
- **SQL**



# Workflow Author

- Business domain
- GIS knowledge
- Workflow Manager steps

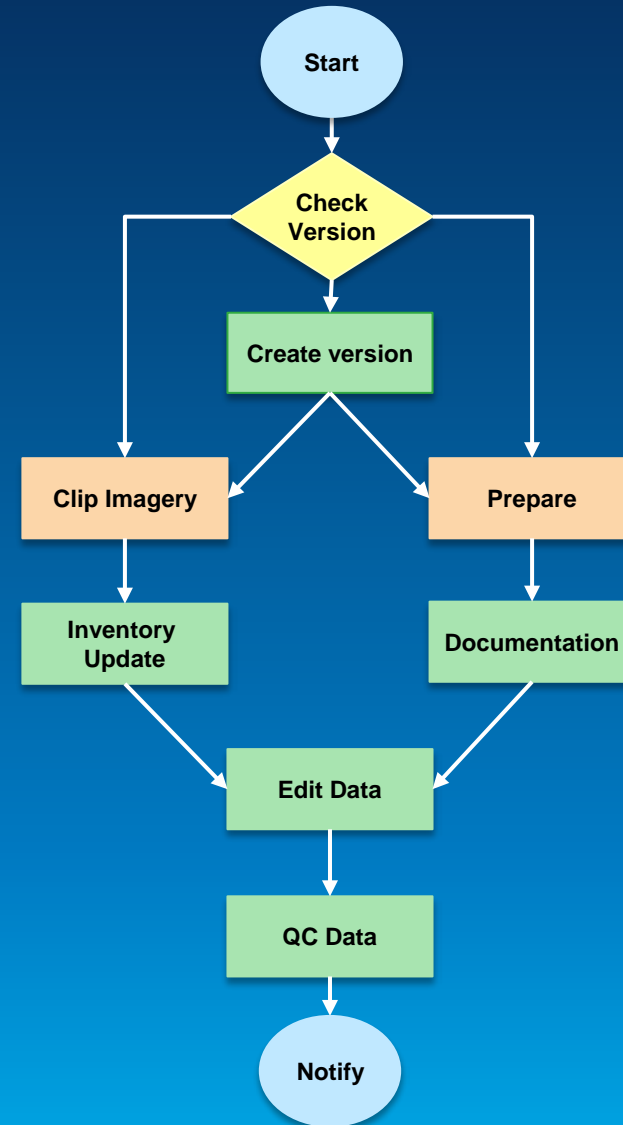


# Workflow Developer

- **Python and ArcPy**
- **Building libraries in a COM language**
- **JavaScript/Flex/Silverlight**

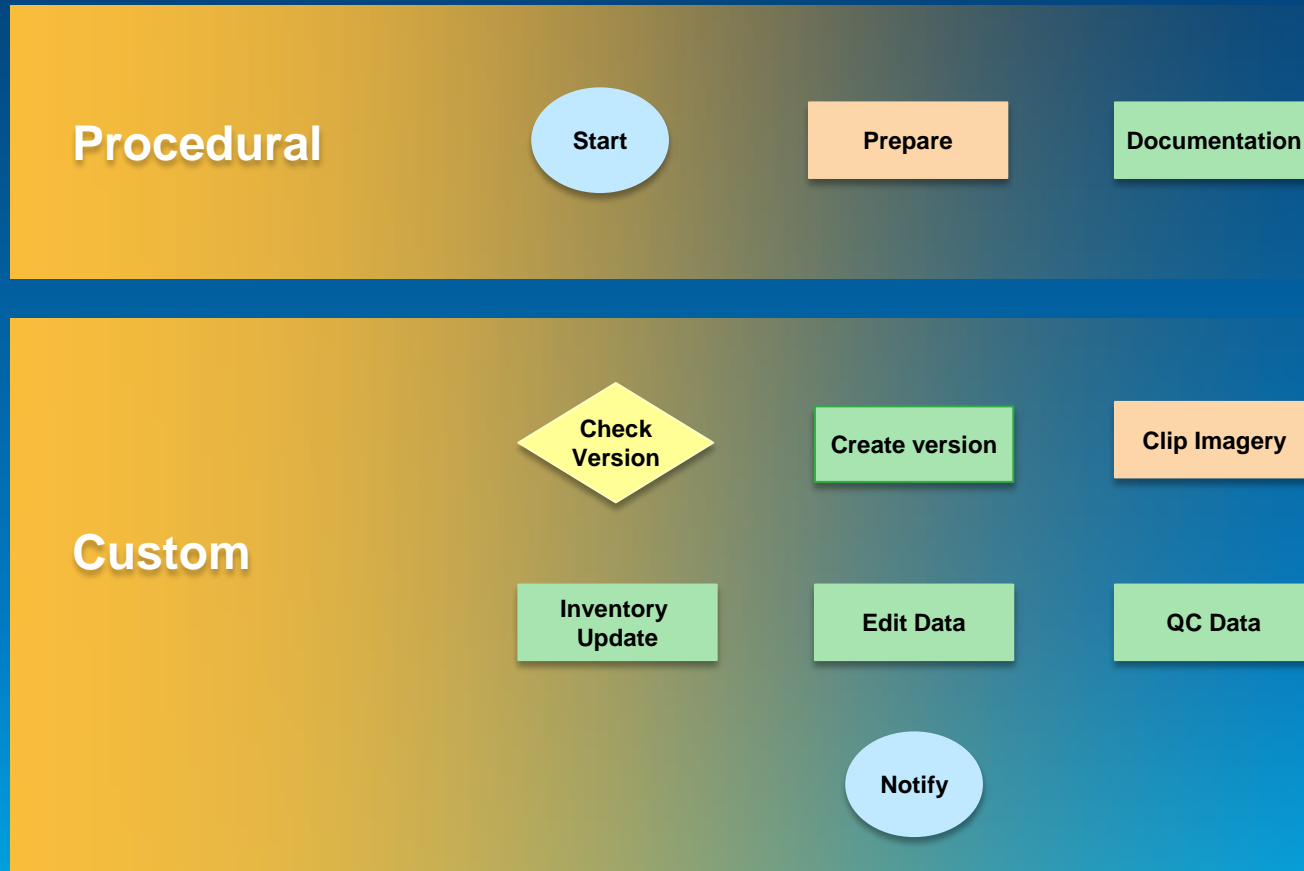
# Designing Workflows

- Drag-n-drop workflow designer
- Step type library
  - Procedural
  - Ask question
  - Run executable
  - Open file
  - Launch URL
  - Custom
- Execution paths



# Designing Workflows

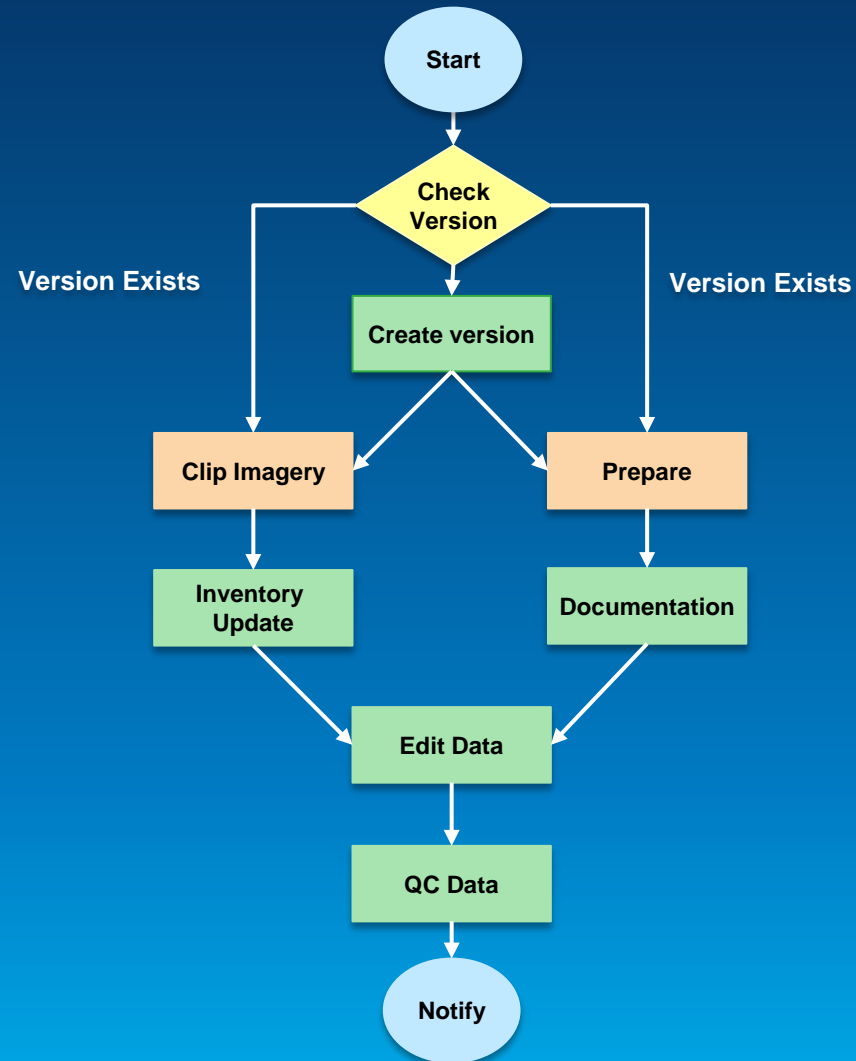
## Create Step Types





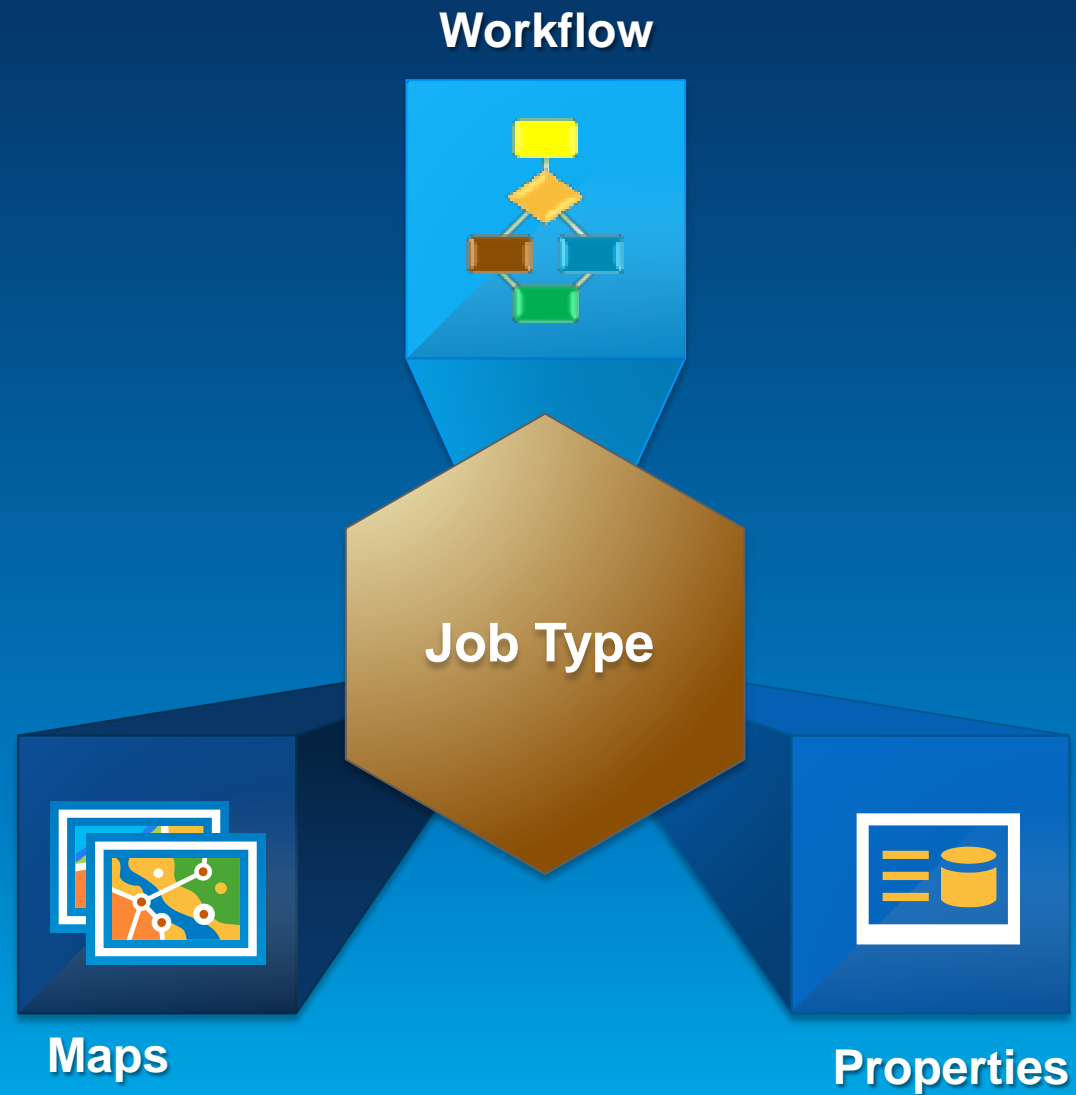
# Designing Workflows

## Create Workflow



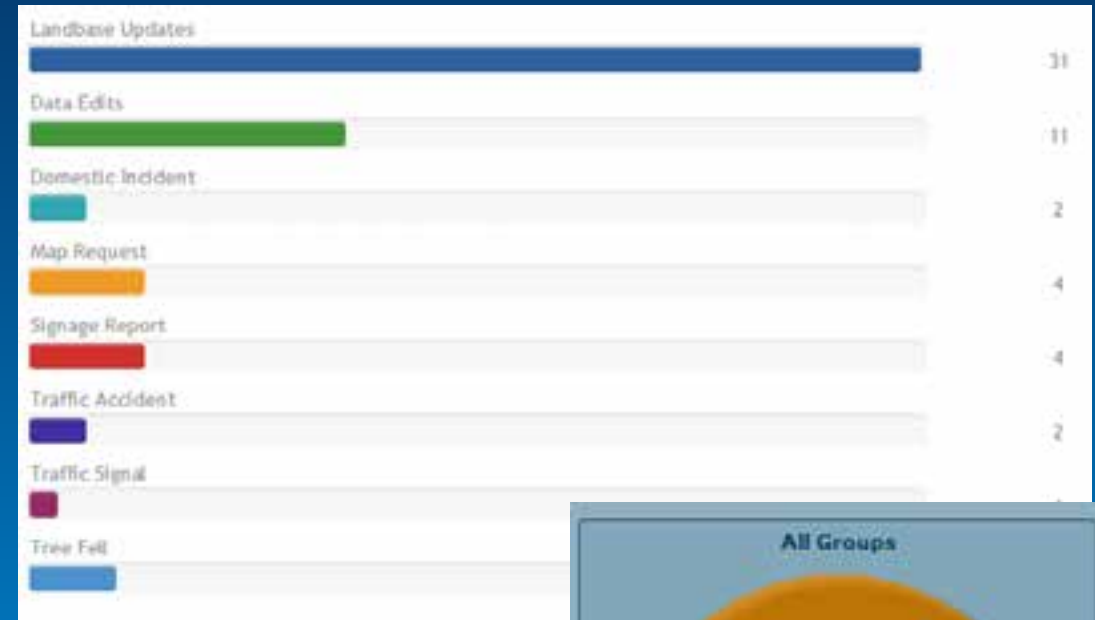
# Designing Workflows

## Configuring Job Types

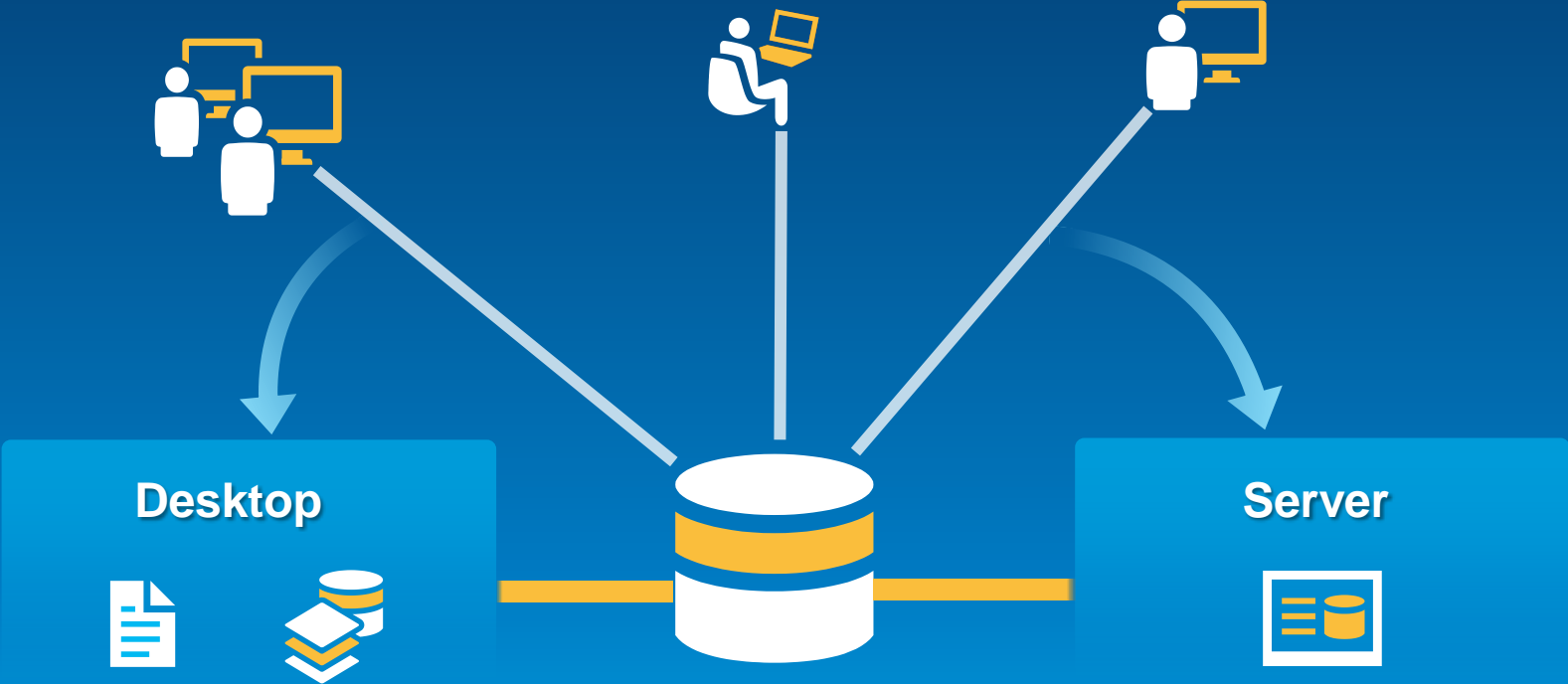


# Reporting

- Monitor Progress
- Balance schedule, time and cost
- Evaluate past projects



# Sharing Workflow Manager



Demo

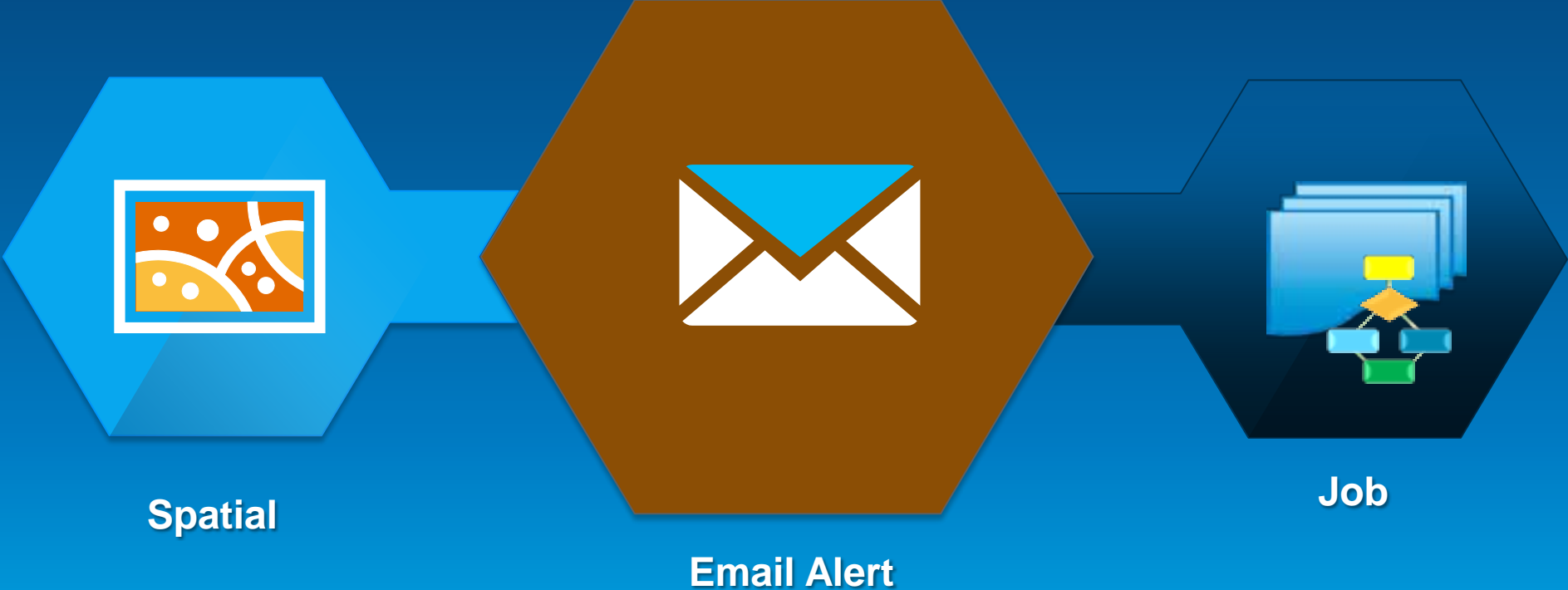
# Configuring ArcGIS Workflow Manager

Designing Workflows



# Notify & Relate

# Notifications



# Utilizing Tokens

[EMAILOF([JOB:ASSIGNED\_TO])] A diagram illustrating the use of a token in a workflow. At the top, a light blue box contains the token expression [EMAILOF([JOB:ASSIGNED\_TO])]. Two light blue arrows point downwards from this box towards a central gear icon, which represents a processing step. From the gear icon, two more light blue arrows point downwards to a dark blue box at the bottom containing the email address john43484@esri.com.

john43484@esri.com



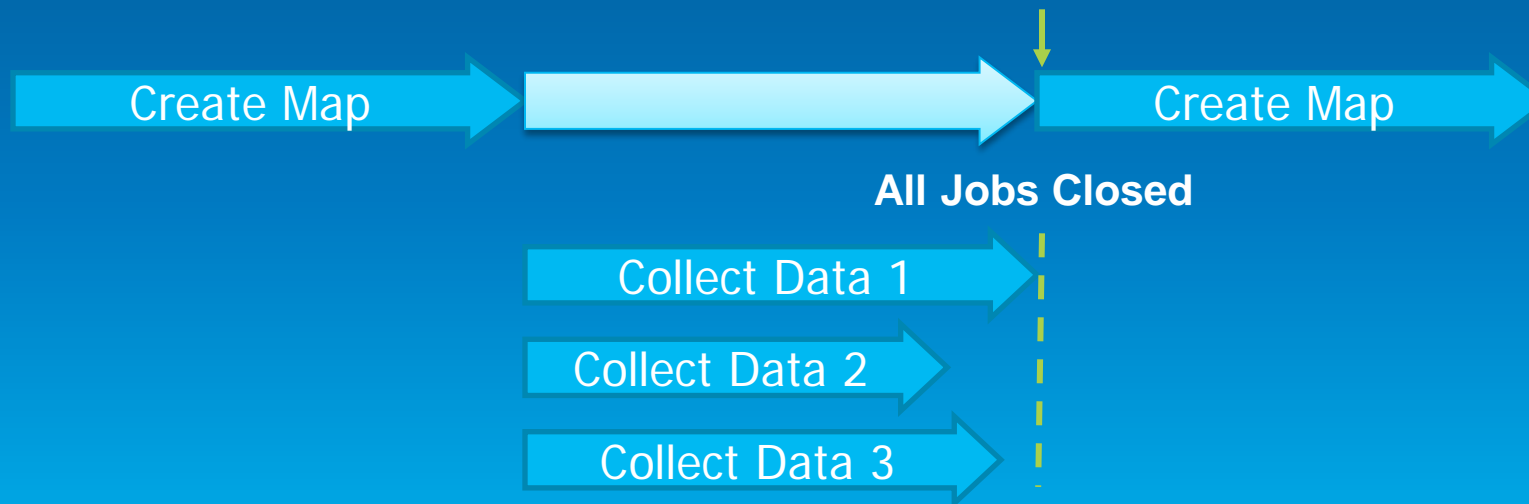
# Token Parsers

- **Job Properties**
- **Extended Properties**
- **System Properties**
- **Function**
- **Environment variables**
- **Spatial Notification**

# Advanced Workflow Modeling

## Child Jobs and Dependencies

- Parent/child relationships between jobs
- Dependencies restrict workflow based on state of another job



# Modeling Relationships Between Jobs

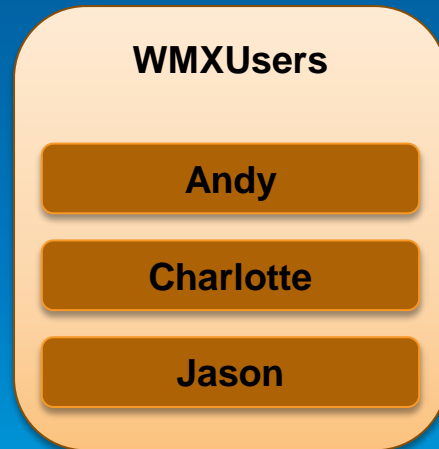
## Child Jobs and Dependencies

- **CreateJobAdvanced** step can create child jobs
  - Can also create a dependency
  - Split parent job by geographic area



# Integrating User Data

- **Integrate with Active Directory**
  - Import users and groups from Active Directory
  - Can repeat to get up-to-date information



Demo

# Configuring ArcGIS Workflow Manager

Notifications

Tokens

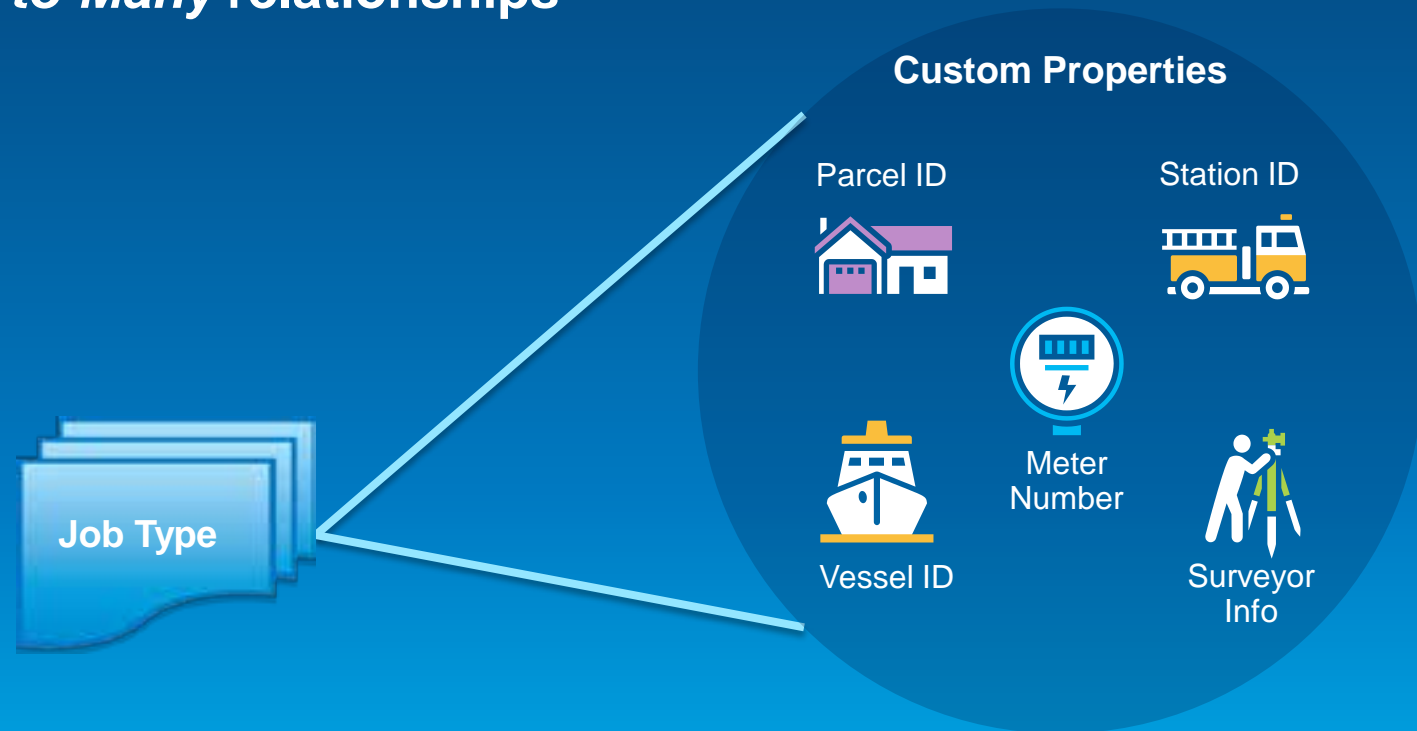
Job Relationships



# Integrate & GeoProcess

# Integrating Business Data

- **Business-specific data**
- ***One-to-One* or *One-to-Many* relationships**



# Extended Properties

- Separate geodatabase tables
- Long integer field joins to job ID

Jobs Table

job_id	job_name	...
1	JOB_1	
22	JOB_22	

Extended Property Table

JobID	Requestor	...
22	Planning	
1	Zoning	





# Integrating Business Data

## Configuring Extended Properties

- **Create table in Workflow Manager geodatabase**
- **Add as an extended property table**
- **Configure Job Type**

### Extended Property Display Types

Date

Text

GIS  
Dataset

Files

Folders

Value  
List

# Advanced Workflow Modeling

## Geoprocessing (GP) Automation

- **Steps**

- LaunchGPTool step
- ExecuteGPTool step
- Invoke GP services

- **Workflow Manager Tools**



Demo

# Configuring ArcGIS Workflow Manager

Extended Properties  
Integrated Geoprocessing

# Session Recap

- **Overview**
- **Design and Configure Workflows**
- **Notifications**
- **Advance Job Modeling**
- **Integrating Business Data**
- **Geoprocessing in Workflows**

# Resources

- **Product Page**
  - <http://esri.com/workflowmanager>
- **Resource Center**
  - <http://resources.arcgis.com/en/communities/workflow-manager/>
- **Training**
  - <http://training.esri.com/>
- **Forums**
  - <http://forums.arcgis.com/forums/71-Workflow-Manager>

# Where to find us?

- **Esri Showcase**
  - **Today until 1:30 PM**
  - **Geodatabase Management and Web & Server GIS Islands**
  
- **ArcGIS Workflow Manager - Integrating Geoprocessing into Your Business Processes**
  - **Today 12:30 – 1 PM**
  - **Geodatabase Demo Theater**

**Thank you...**

- **Please fill out the session survey:**

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**Online – [www.esri.com/ucsessionsurveys](http://www.esri.com/ucsessionsurveys)**

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