



# Esri Production Mapping: Automate Map Production With ArcGIS Workflow Manager

Joe Sheffield

# Agenda

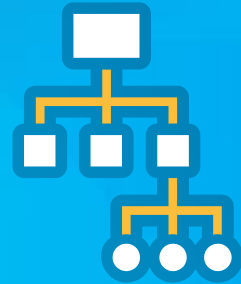
Introduction  
to  
Workflow  
Manager

Jobs

Workflow  
Automation:  
Custom Steps

Workflow  
Automation:  
Geoprocessing

Workflow  
Automation:  
Python



# Employ consistent processes



Step 1

Step 2

Step 3



# Employ consistent processes



Step 1

Step 2

Step 3



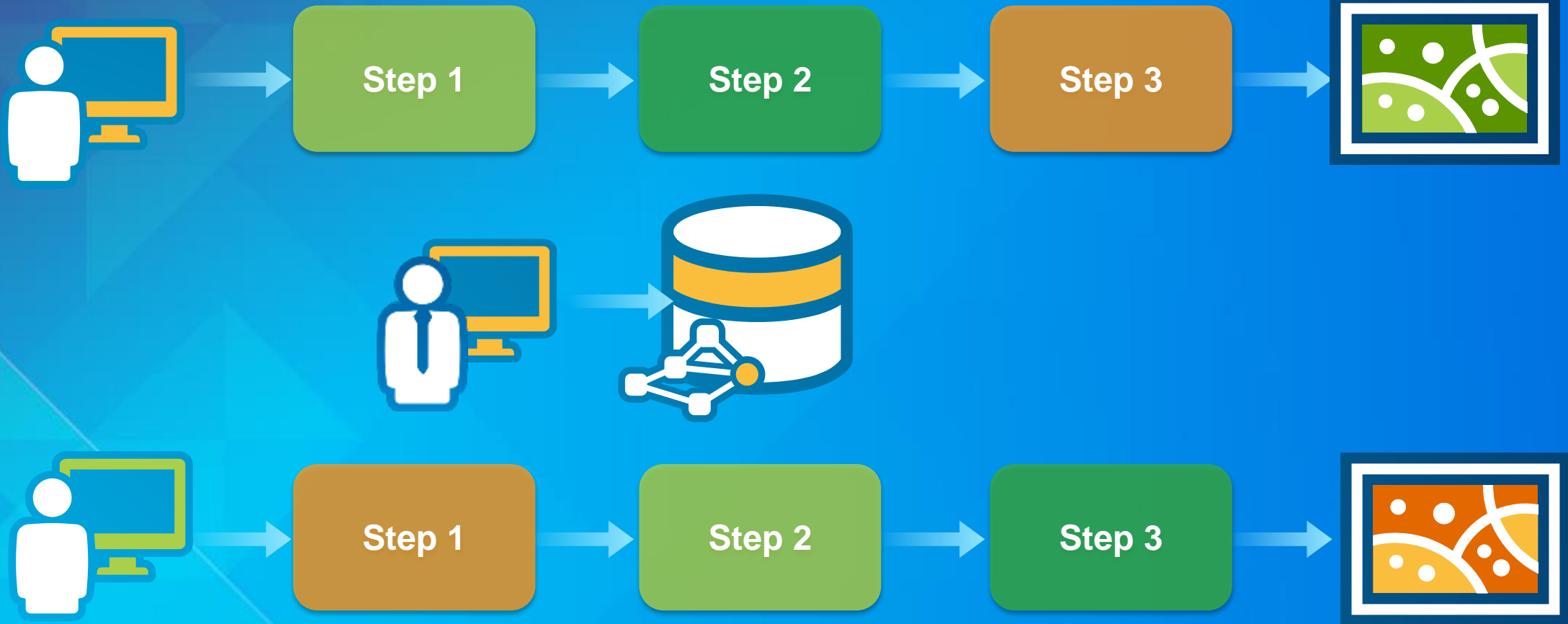
Step 1

Step 2

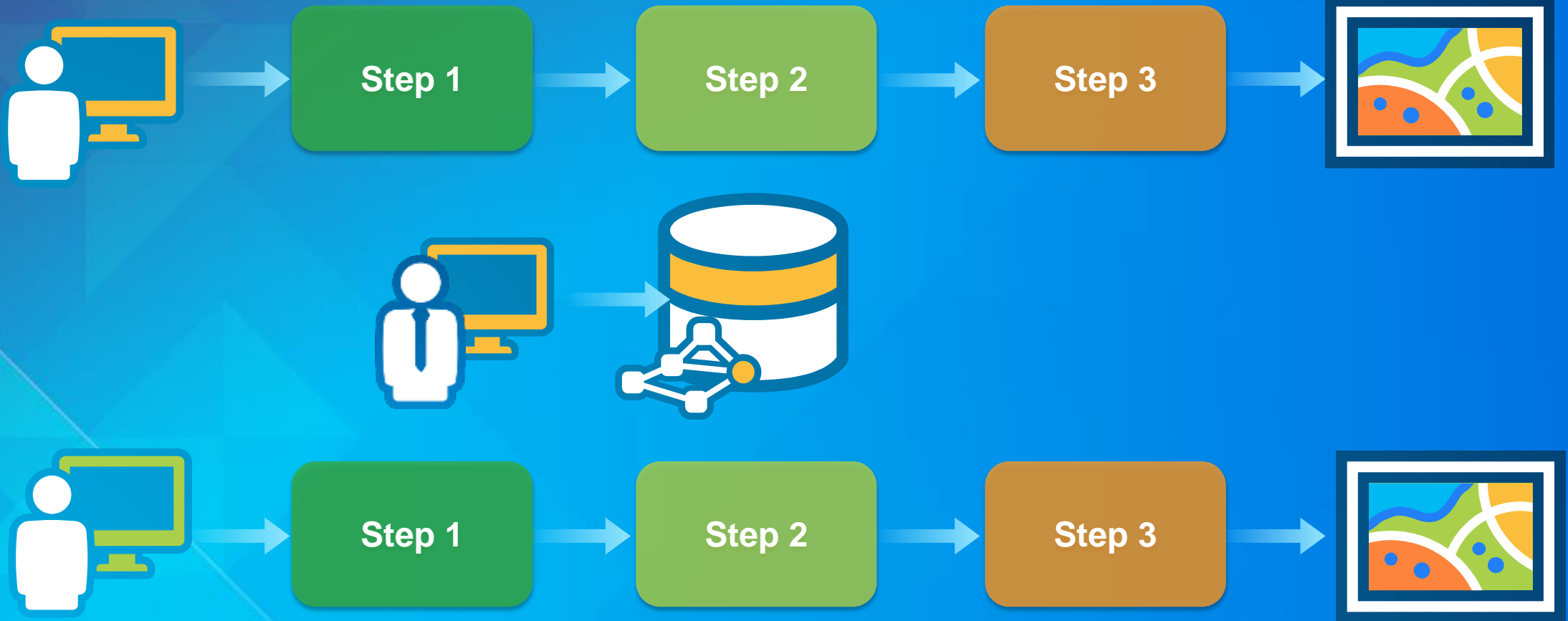
Step 3



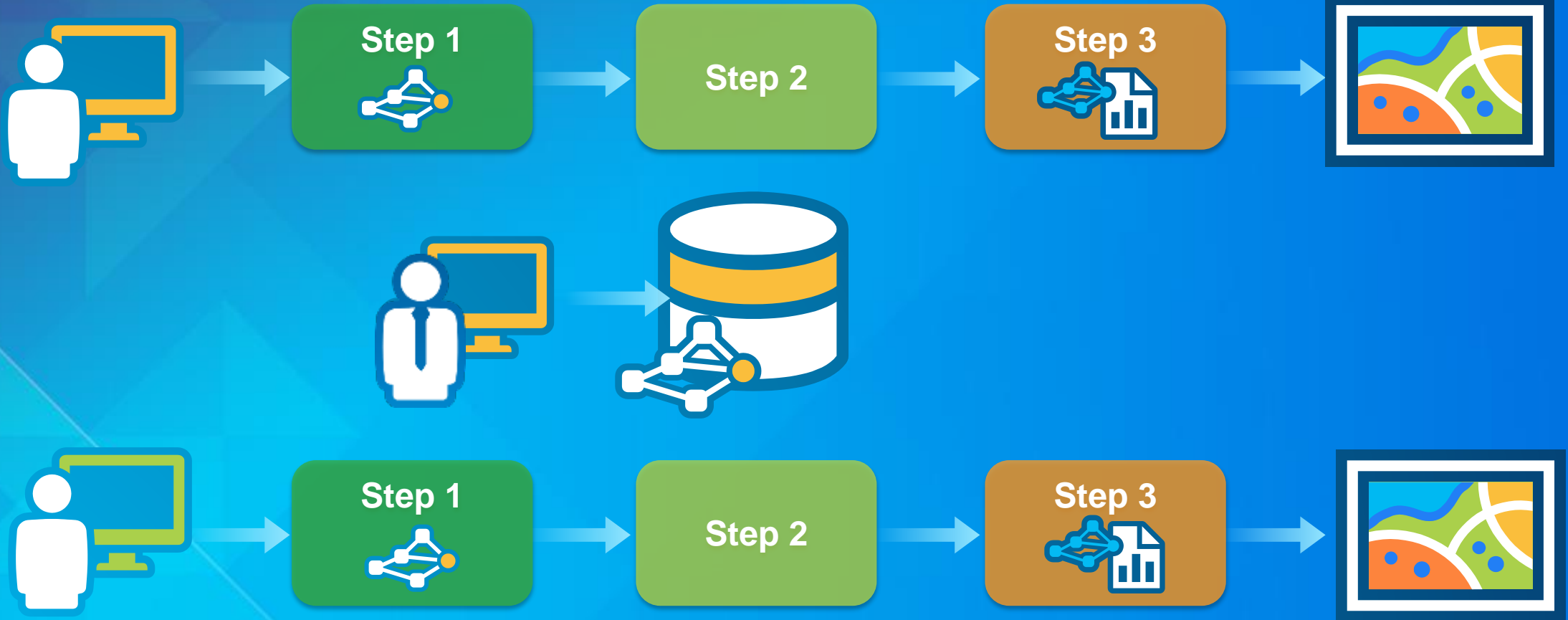
# Employ consistent processes



# Employ consistent processes



# Employ consistent processes





# Civilian Topographic Model (CTM)

Enabling Production Mapping for Topographic Mapping

Template  
Maps

Cartographic  
Rules

Generalization  
Rules

Sample Data

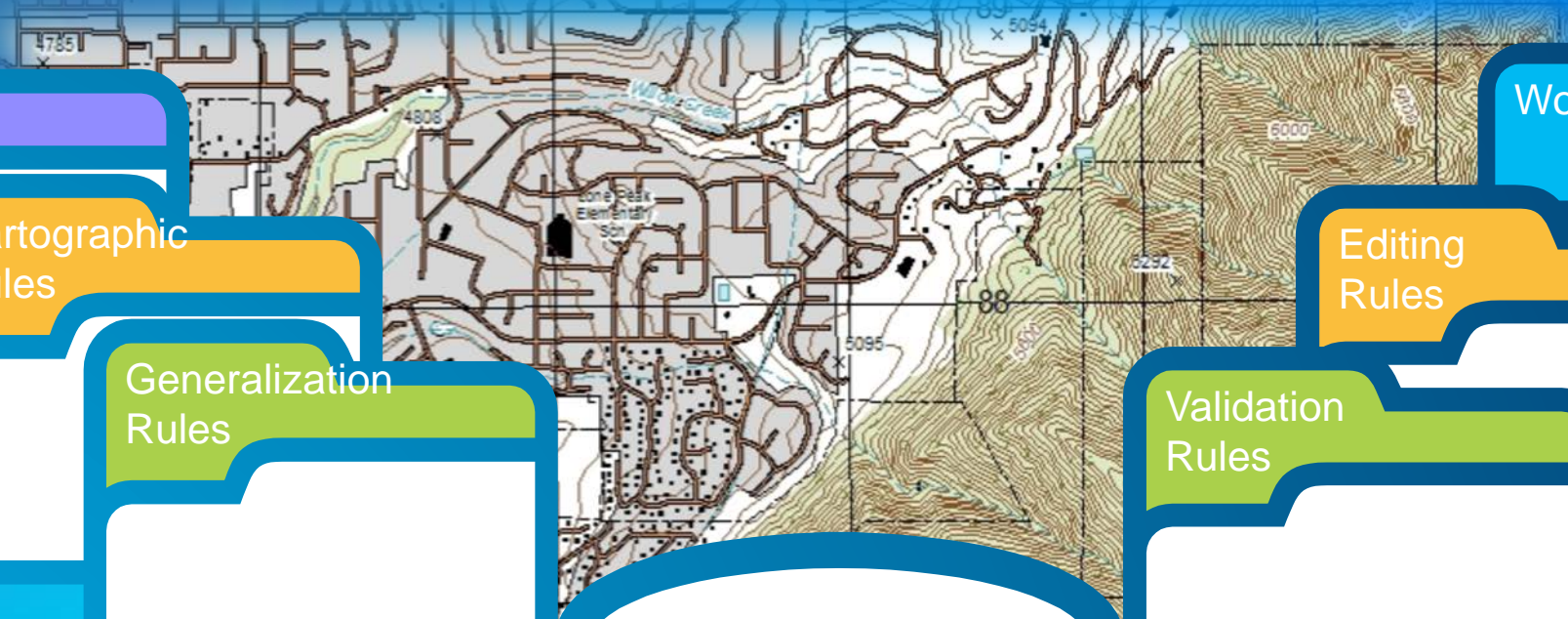
Validation  
Rules

Editing  
Rules

Workflows

Derived from NFDD

<https://github.com/esri/ctm>





Jobs

Jobs

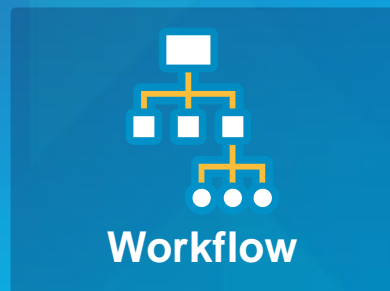
# Jobs



# Jobs



# Automation- WMX Custom Steps

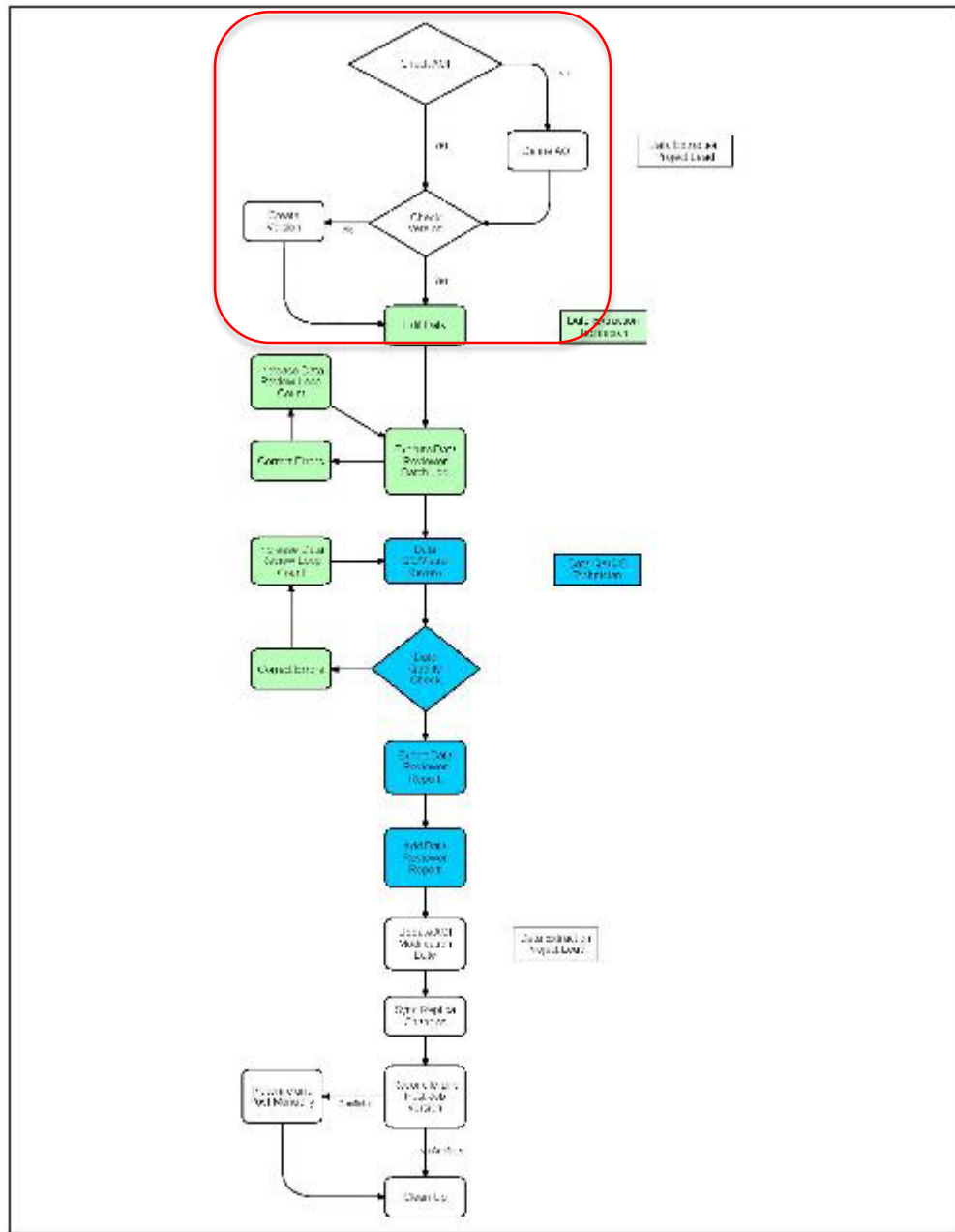


Registered Custom Steps:

- +.. ArcGISProSteps
- +.. DefenseMappingSteps
- .. JTXDesktopSteps
  - .... CopyFile
  - .... CreateJobAdvanced
  - .... DefineAOI
  - .... EditExtendedProperties
  - .... LaunchArcMap
  - .... LaunchArcMap
  - .... Select
- +.. JTXSteps
- +.. Production

Registered Custom Steps:

- +.. ArcGISProSteps
- +.. DefenseMappingSteps
- +.. JTXDesktopSteps
- +.. JTXSteps
- .. ProductionMappingSteps
  - .... CheckInProduct
  - .... CheckOutProduct
  - .... CreateReviewerSession
  - .... IdentifyProduct
  - .... RunReviewerBatchJob
  - .... SyncProductFiles

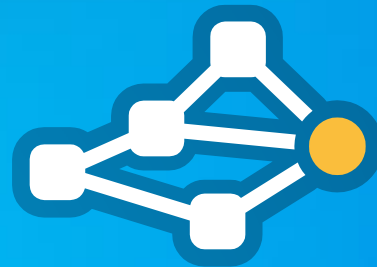
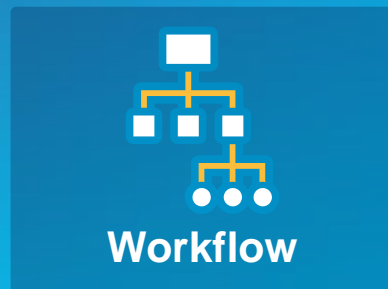









Vector Data Production


























# WMX Custom Steps Demo

with ArcGIS Workflow Manager

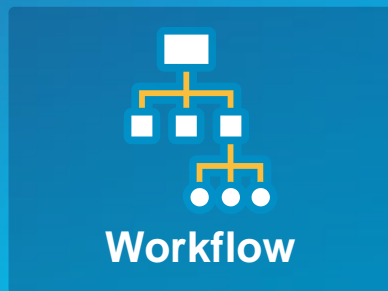
# Automation- Geoprocessing Tools



-  Data Reviewer Tools.tbx
  -  Create Reviewer Session
  -  Delete Reviewer Session
  -  Enable Data Reviewer
  -  Execute Reviewer Batch Job
  -  Geodatabase Schema Compare
  -  Write to Reviewer Table

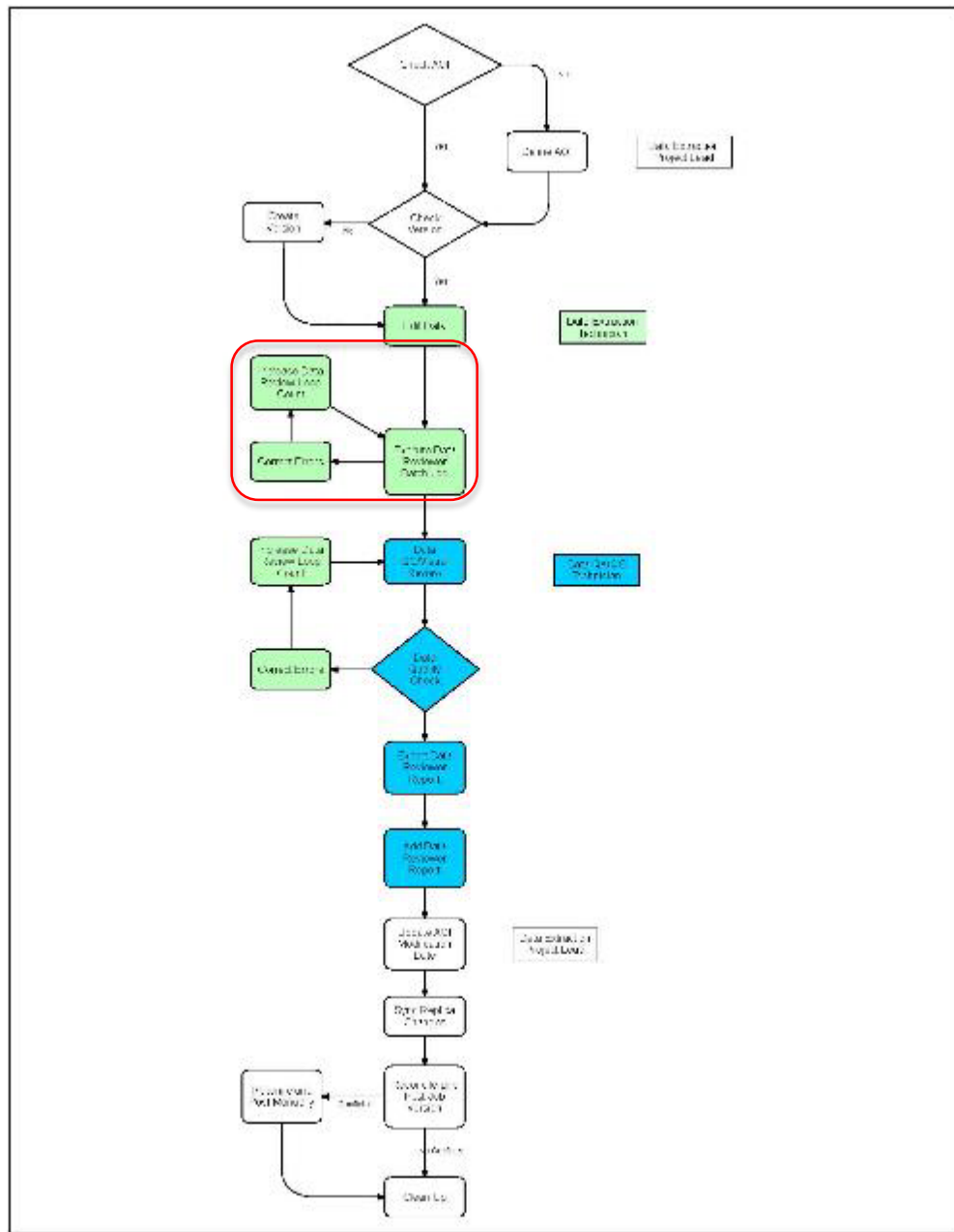
-  Production Mapping Tools.tbx
  -   Cartographic Data
  -   Cartographic Editing
  -   Conversion
    -  Load Data
    -  VPF To Geodatabase
  -   Distributed Geodatabase
    -  Create Replica
    -  Extract Data
  -   Editing
  -   Generalization
  -   Product Library
  -   Surround Elements
  -   Symbology
  -   Utilities

# Automation- Python Scripts



- WMX\_CTM\_Tools.pyt
- Create Job Folder
- Create Replica File Geodatabase
- Execute Data Review BatchJob
- Map Document Export
- Reconcile and Post Job Version
- Resources Map Document
- Review Loop Count
- Updates the Date Modified Field

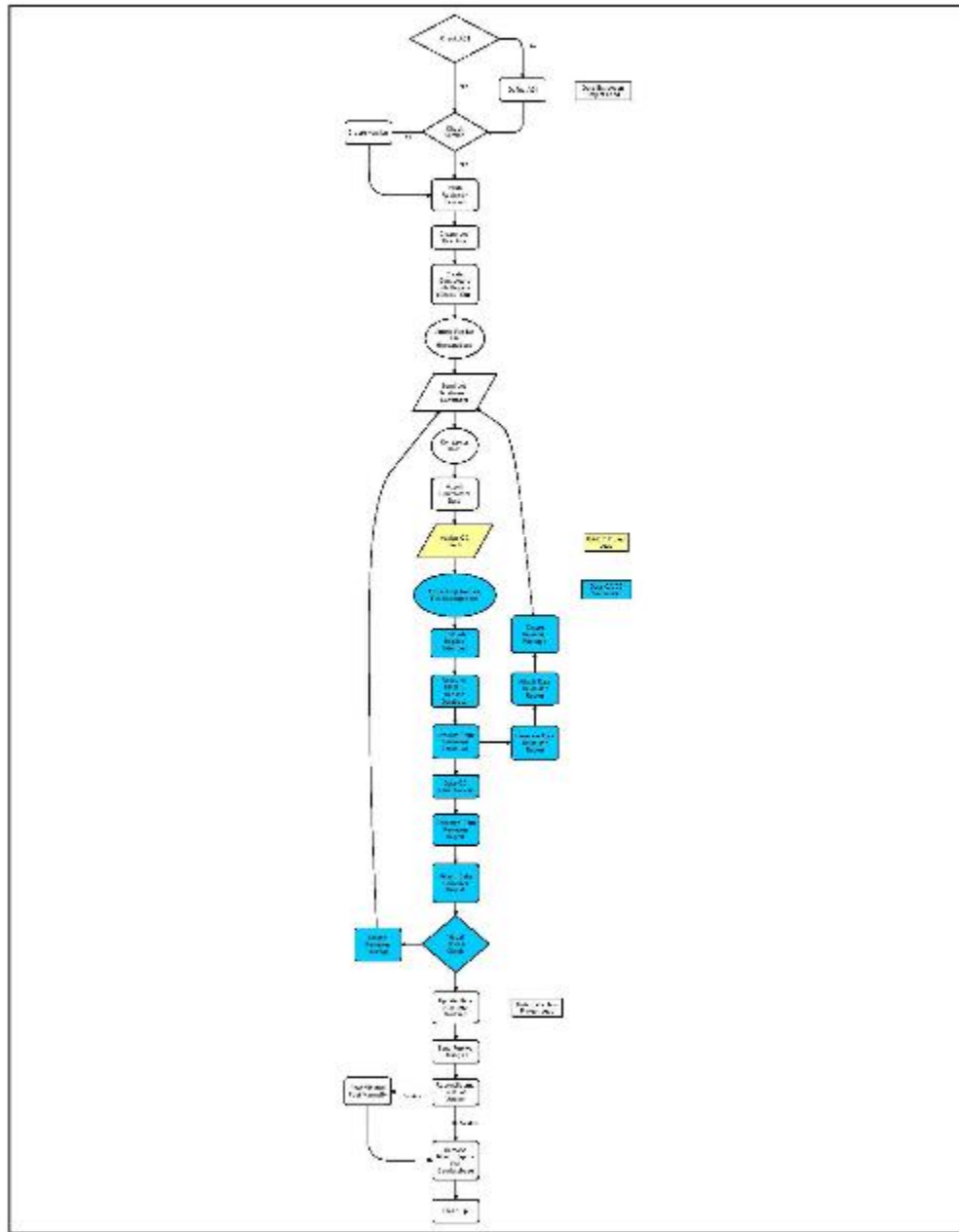




Vector Data Production

# Python Demo

with ArcGIS Workflow Manager



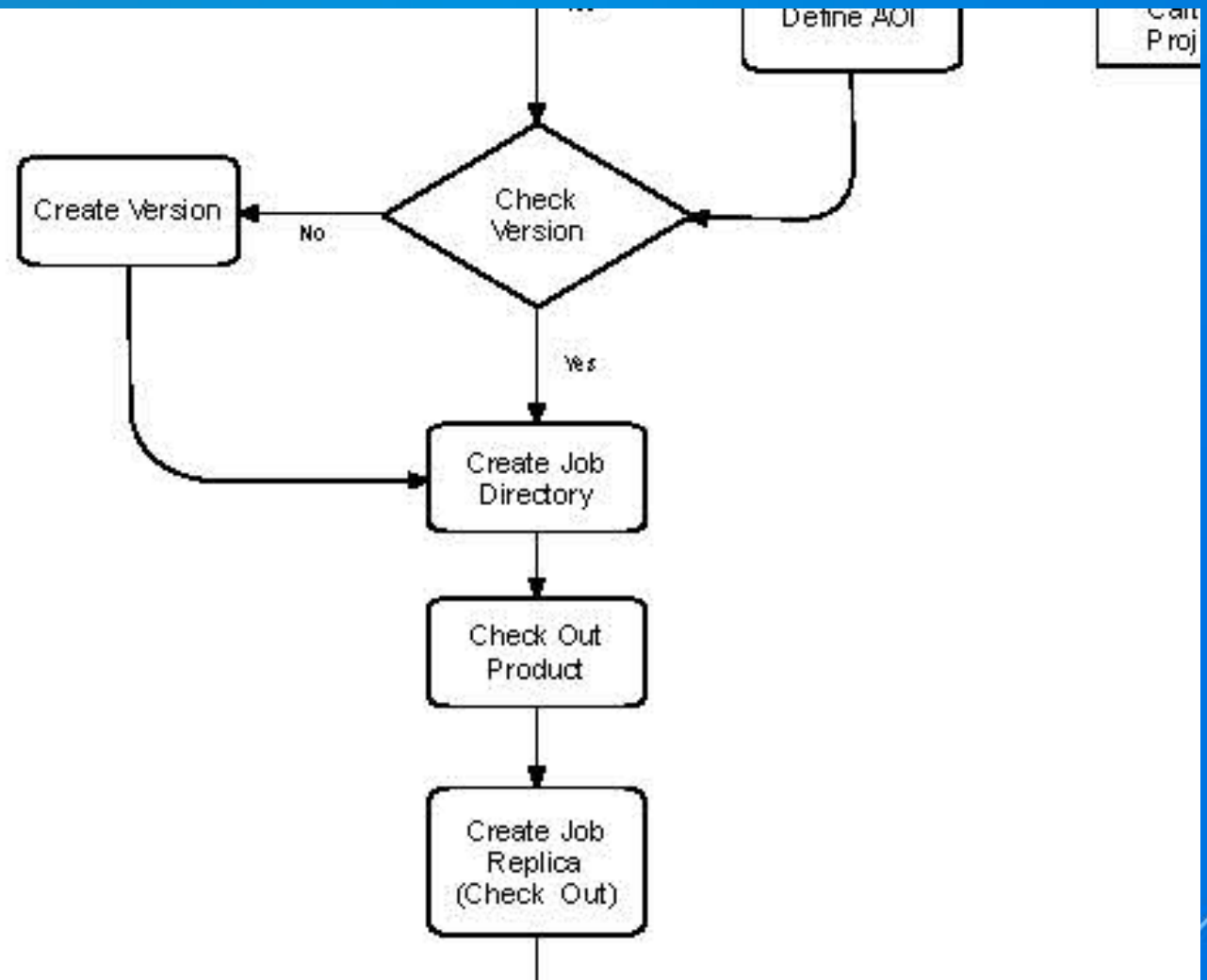
Vector Data Production (Contractor)

# Map Generation

with ArcGIS Workflow Manager

# Cartographic Production

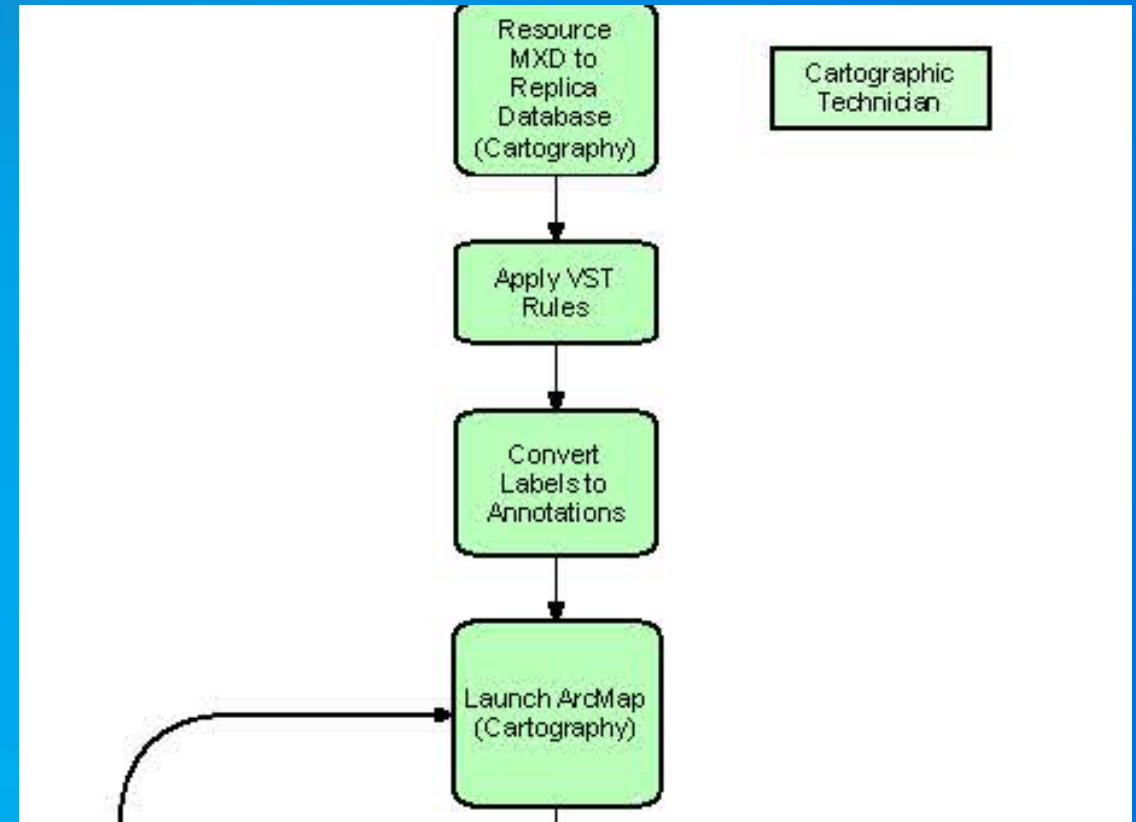
Template  
Maps



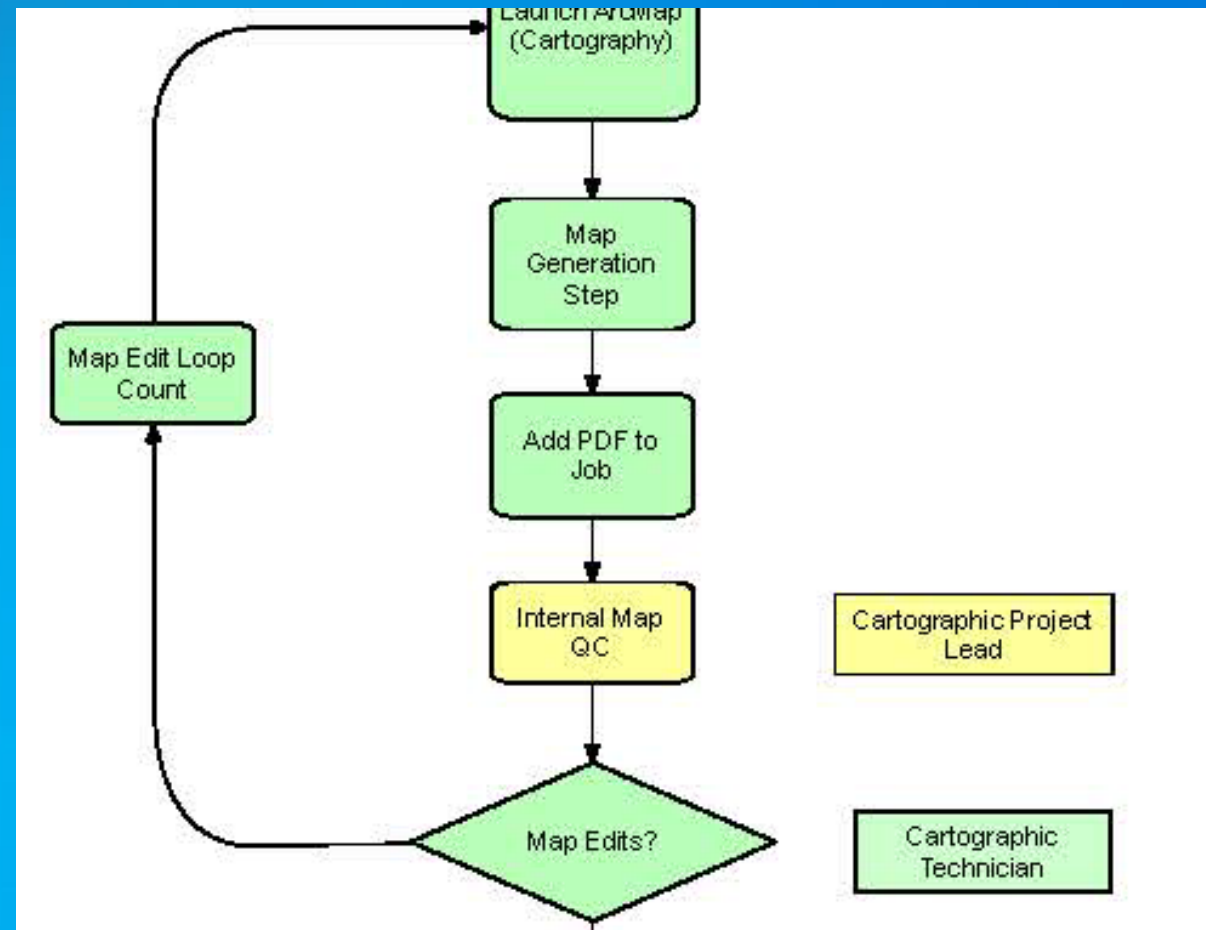
# Cartographic Production

## Cartographic Rules

- Production Mapping Tools.tbx
  - Cartographic Data
  - Cartographic Editing
  - Conversion
  - Distributed Geodatabase
  - Editing
  - Generalization
  - Product Library
  - Surround Elements
  - Symbology
    - Calculate Visual Specifications
    - Drop Visual Specifications
    - Select Features By Specifications Difference
    - Select Features By Symbol Color
  - Utilities



# Cartographic Production



**Questions?**

## References

### Civilian Topographic Model

<https://github.com/esri/ctm>

### Workflow Manager

Learn More:

<http://www.esri.com/software/arcgis/extensions/arcgis-workflow-manager>

60-day Free Evaluation

### Production Mapping

Learn More:

<http://www.esri.com/productionmapping>

60-day Free Evaluation

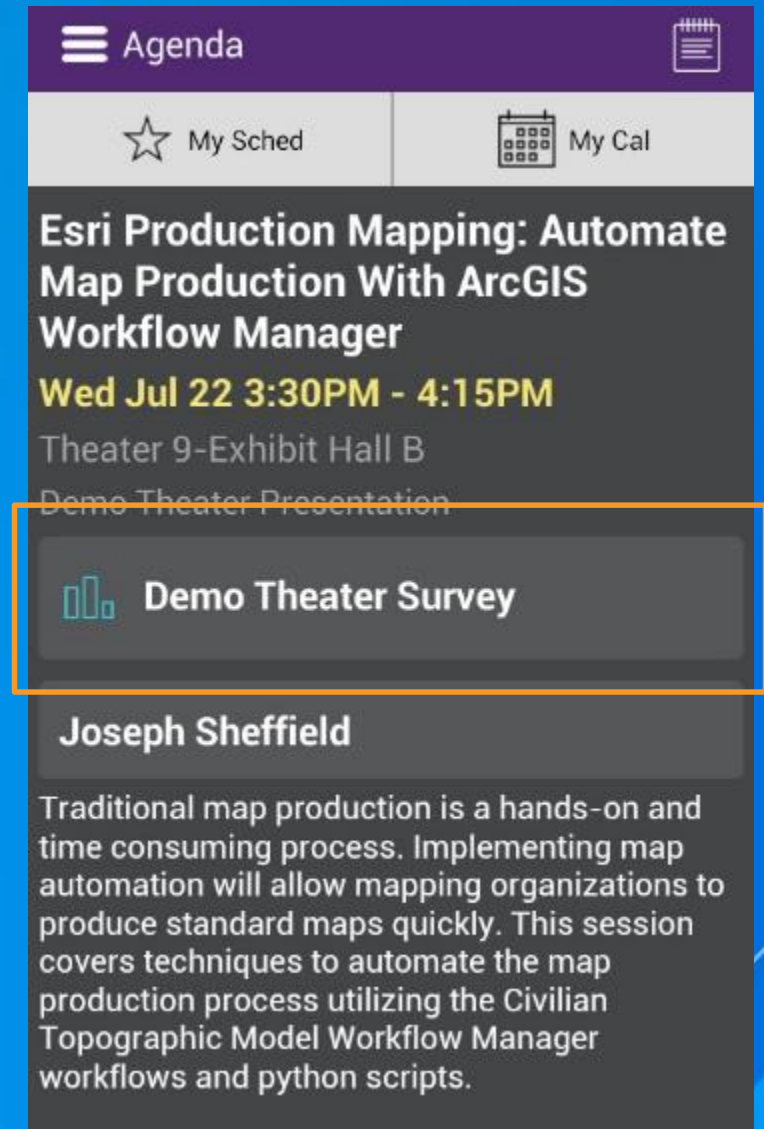
Reach out:

[productionmapping@esri.com](mailto:productionmapping@esri.com)  
[workflowmanager@esri.com](mailto:workflowmanager@esri.com)



# Thank you...

- Please fill out the session survey in your mobile app
- Select Esri Production Mapping: Automate Map Production With ArcGIS Workflow Manager
- In the Mobile App Use the Search Feature to quickly find this title
- Click “Demo Theater Survey”
- Answer a few short questions and enter any comments





Understanding our world.