

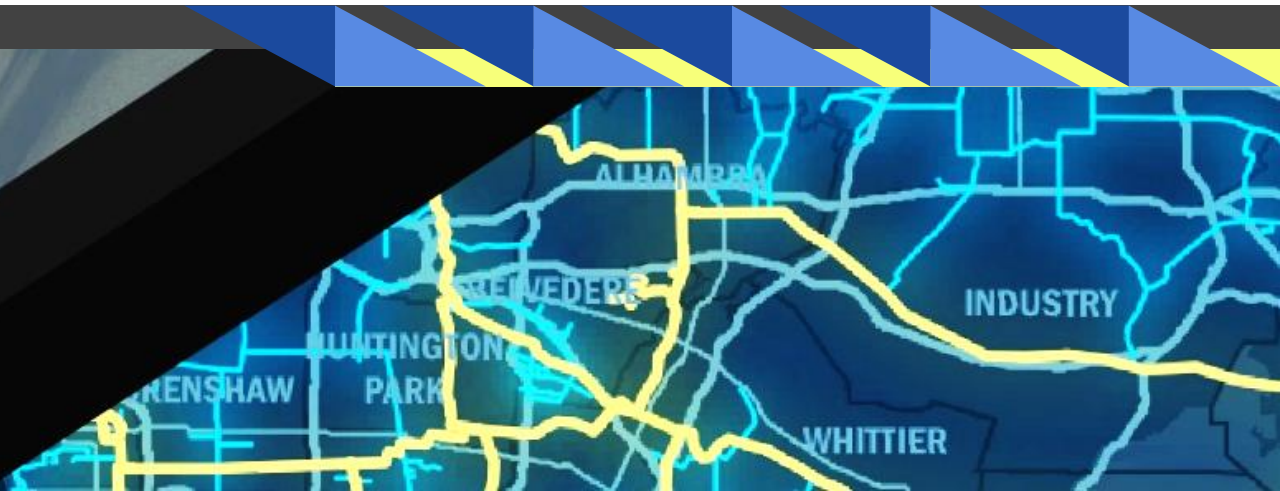


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# UPDM / APR

Linear Referencing &  
Workflow Concepts

Esri GeoConX 2018



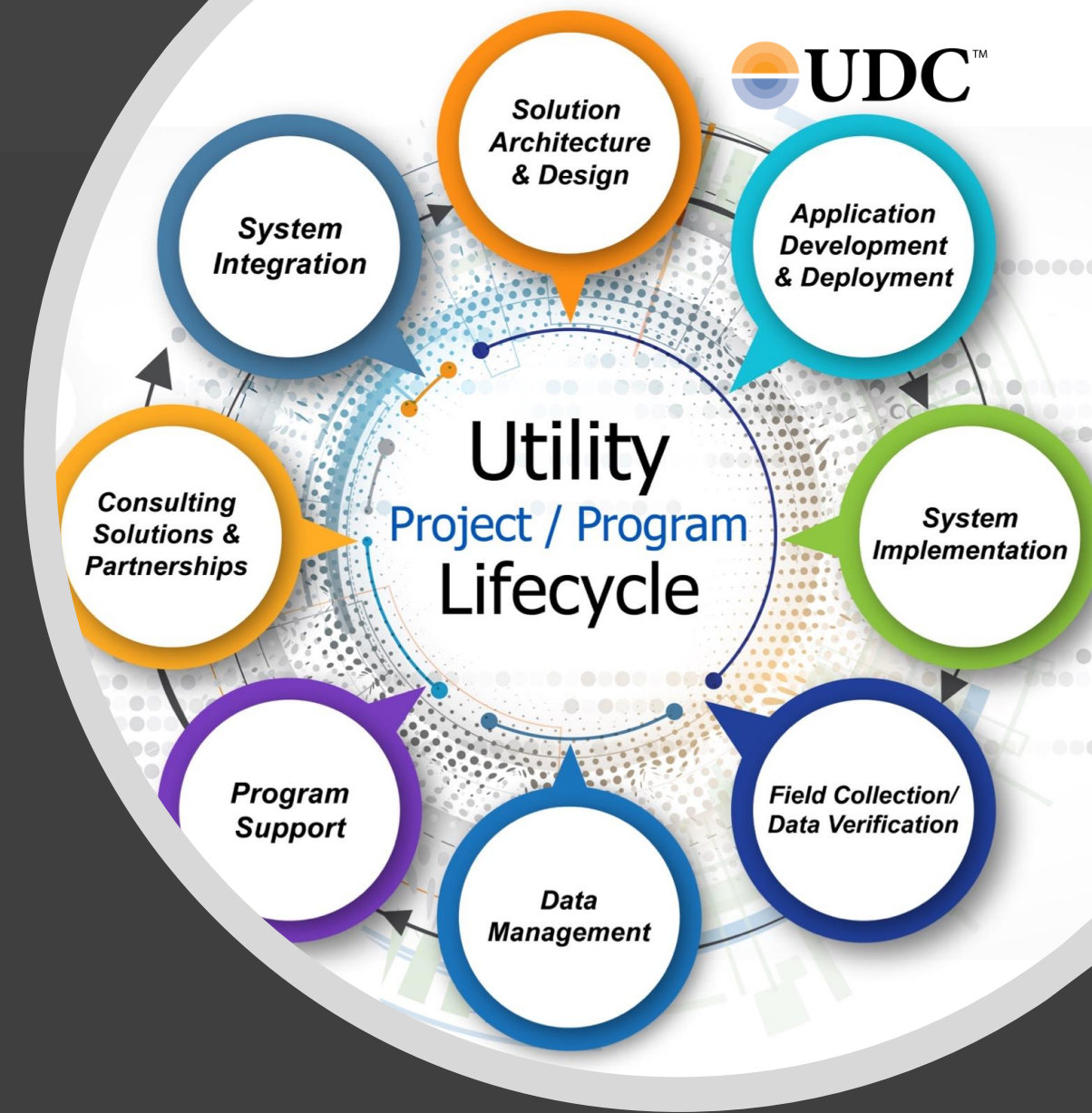
# SoCalGas Overview

- Nation's largest Natural Gas Distribution Utility
- SoCalGas serves 21.8 million consumers through 5.9 million meters in more than 500 communities
- Our service territory encompasses approximately 24,000 square miles in diverse terrain throughout Central and Southern California, from Visalia to the Mexican border.
- We are a Sempra Energy utility® which also includes San Diego Gas and Electric.

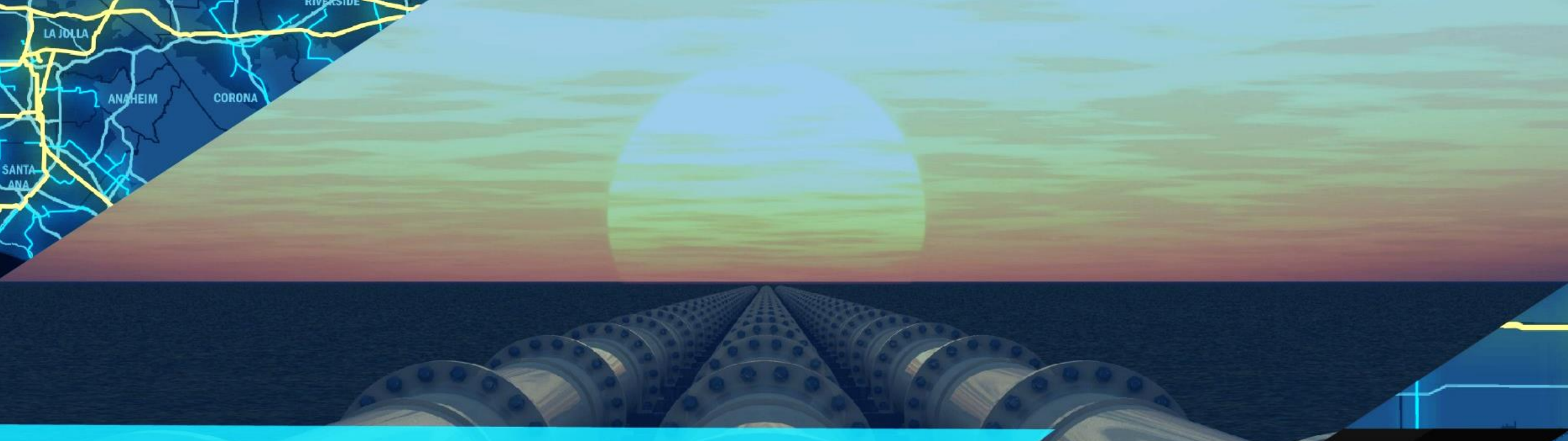


# UDC Overview

- Founded in 2005
- Privately Owned
- 275 Employees
- Systems Integrator – Spatial Visual Focus
- Implementation Focus
- Extensive Gas Systems Experience





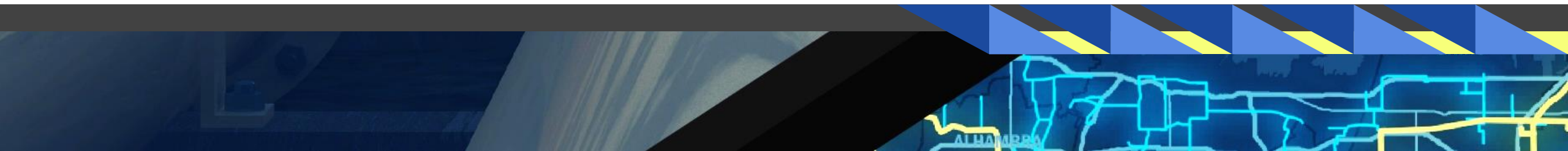


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# ArcGIS Pipeline Referencing (APR)

## Linear Referencing

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# Project Background



## Ready to Upgrade

- Core GIS
- Compatible with multiple databases and applications
- Allow for customizations and automations
- Able to transition existing functionality
- Support Various Business Processes

## Working with the Business:

- Built business requirements
- Engaged Esri Services team for UPDM / APR implementation
- Completed Multiple Data Modeling Sessions
- Participated on Hands On, Beta application release
- Identified key components required for Linear Referencing
- Several Weeks of User Acceptance Testing

## Implementation

- UPDM Data Model
- Virtual Desktops (VDI)
- ALRS with ArcGIS Pro and ArcGIS Server
- Defined Business Workflows
- Added Various Validations for QA\QC
- Minimized Edit Steps for Users





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# Implementing Linear Referencing



## Setting up the Environment

- Created a Proof of Concept (POC) for Desktop and Web
- Setup an ETL to migrate data
- Identified impacted applications
- Scaled the platform for expected number of users

## Getting Started

- Setup custom Pro Projects for “ready to connect” data
- Integrated steps to link between Desktop and Web
- Created MXDs to support Services
- Integrated existing standard symbology from our enterprise GIS
- Identified how to quickly promote changes to a VDI
- Created Spatial Views to connect to other systems
- Identified new tools

## Testing

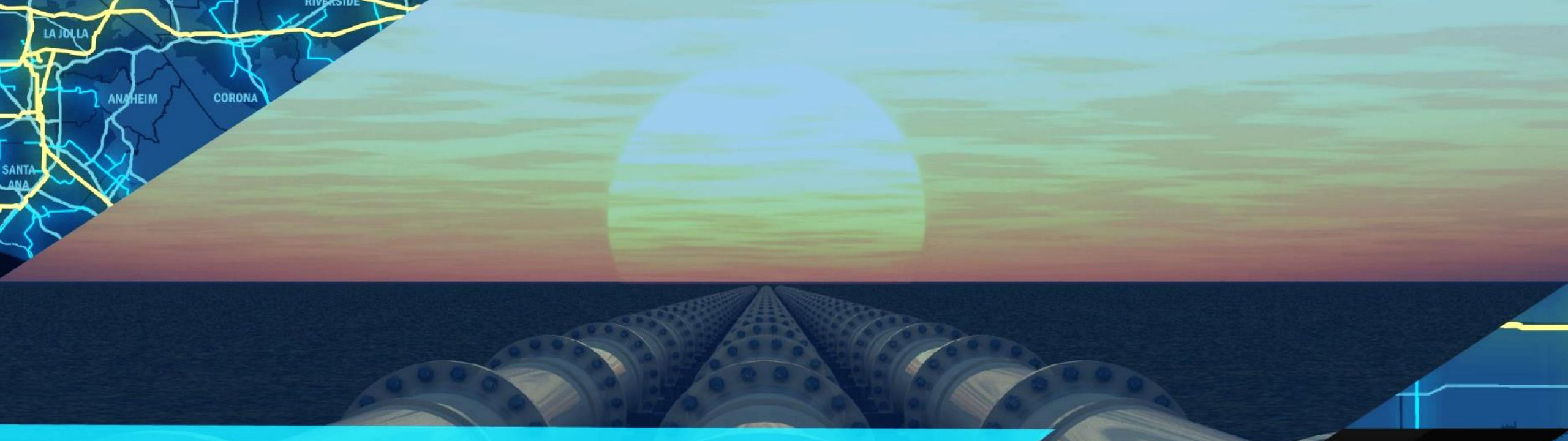
- Setup POC environment
- Created various environments for Testing and Promotion
- Integrated upgrades during testing life cycle
- Walked through various workflows
- Identified improvements
- Built training documentation and guides



## Getting Ready for Production

- Ran through consecutive tests for Cutover
- Released for User Acceptance Testing
- Reviewed data issues prior to cutover
- Coordinated training during outage week
- Focused on production workflows during training
- Implemented to Production

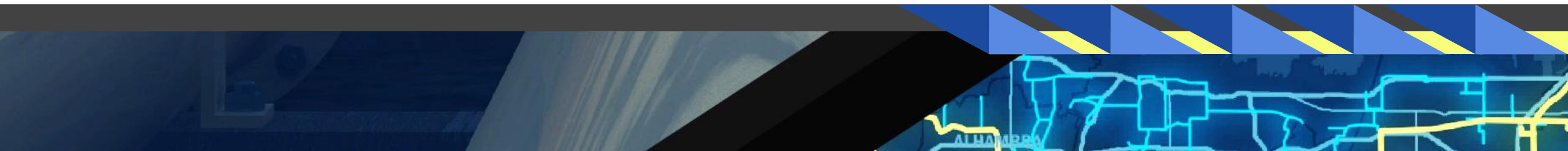
QUESTIONS?



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# Workflow Manager Concepts

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## Where do we start?

- What groups of users will connect to a workflow
  - Editors
  - QA/QC
  - Analysis
  - Management



## Components of Editing Workflows

- Geometry Editing & Calibration (Desktop)
- Attribute Editing (Web)
- Quality Control
- Analysis
- Approve and Reject Work
- Track work group and jobs

## Putting it all Together

- Start at the beginning, setup the version and create the Work in Progress (WIP)
- Establish editing controls
- Smart Launching
- Tools that run in the Web
- Transition Between Teams
- Post the Changes

## Tracking Work

- Pipeline List for Work in Progress
- Generated Views
  - Active Jobs
  - Closed Jobs
  - All Jobs
- Group Views and Queue's for Existing Jobs



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# Benefits





## Benefit #1: Configurable

- Workflow manager OOTB allows for configuration at each and every step and supports custom tools and automations
- The Linear Referencing solution's are extendable and can be modified to support user workflows
- Applications are GIS at it's center and supports this functionality at the database level.
- Data model is configurable without impacting the application
- Establishes the framework for a single data model

## Benefit #2: API options

- Multiple Options available to enhance the system
  - Python
  - C#
  - Java Script, HTML, DOM
  - Database provided functionality
  - Workflow manager enable functionality
  - Window API support



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# Thank you!

