

*Apache*

# APACHE GEOCRAWLER

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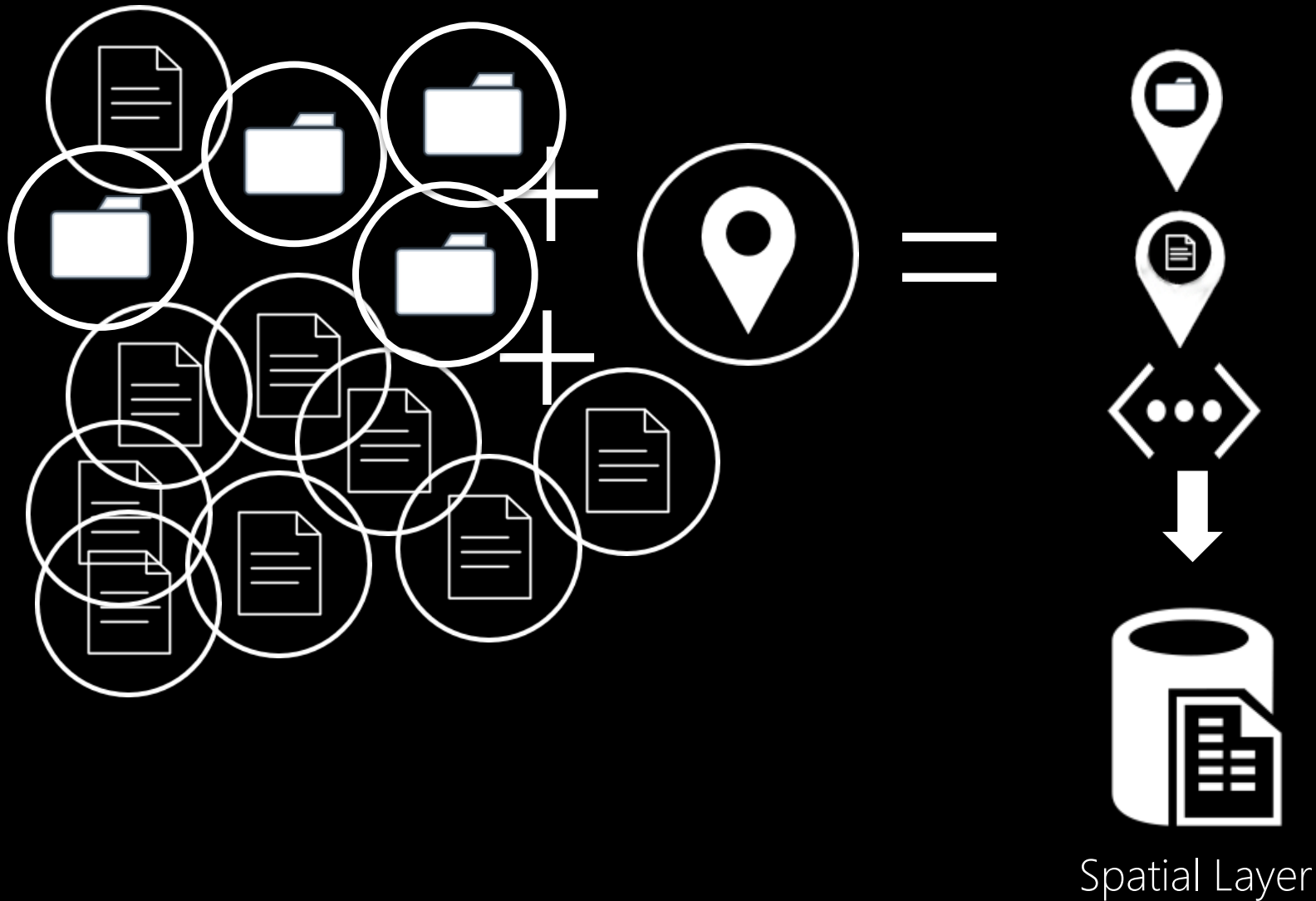
# AGENDA

- ▶ Concept
- ▶ Components
  - ▶ Service Manager App
  - ▶ Server App
- ▶ Demo
- ▶ Next Steps
- ▶ Q&A

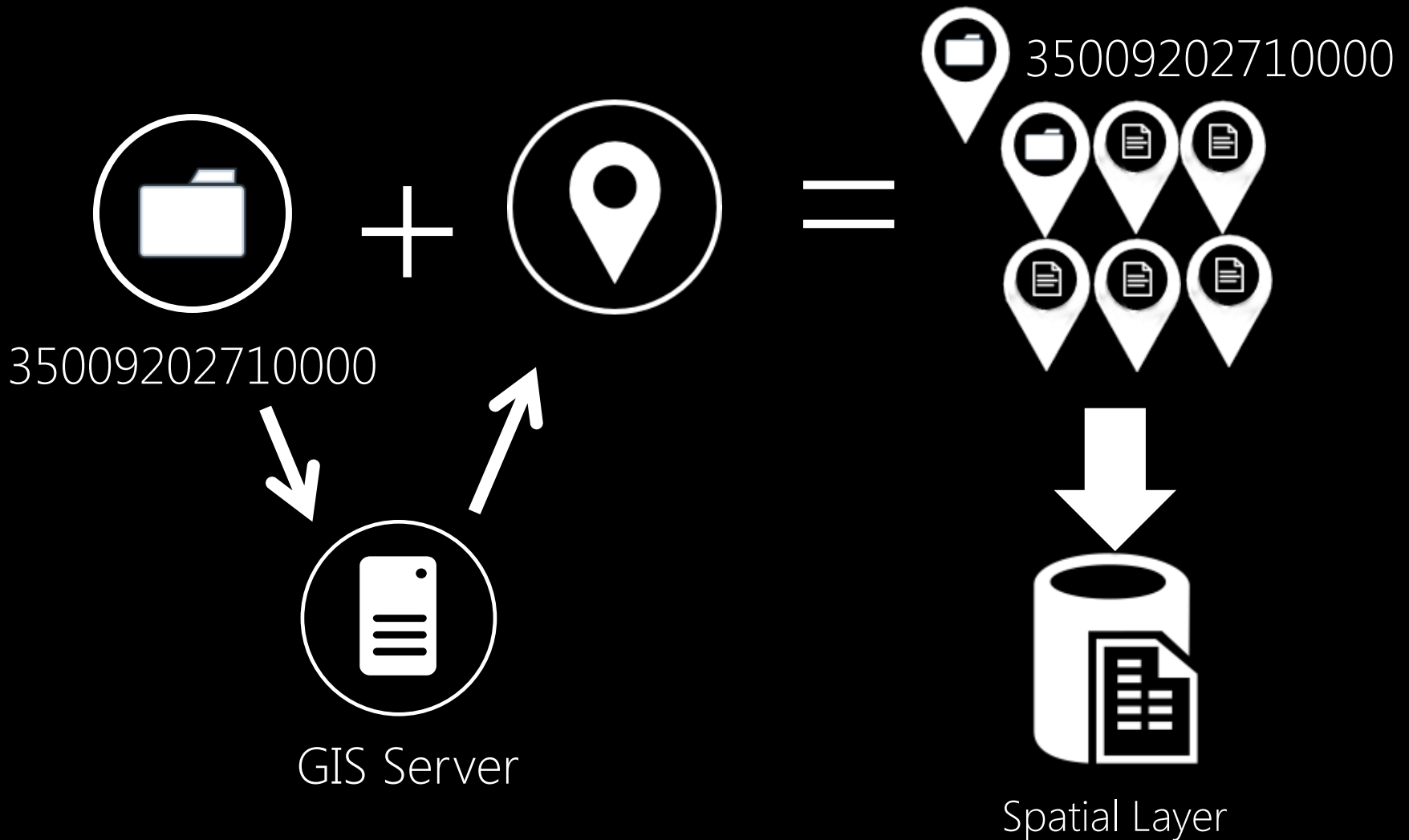
# GEO-CRAWLER BACKGROUND

- Find Raw Well Data in Corporate Network
- Network folders are organized differently
  - ▲ North America \ Cook Inlet \ 50133205880000-NINILCHIK UNIT PAXTON-3
  - ▲ Tulsa \ Colorado\_05 \ adams\_001 \ 05215\_00
  - ▲ UK \ Quad\_001 \ 1\_04 \ 1\_04-1
- Focus on Petrophysics content types
  - ▲ LAS, XLS, XLSX, JPG and others

# GEO-CRAWLER CONCEPT - GEOCODING



# GEO-CRAWLER CONCEPT - GEOCODING



# GEO-CRAWLER CONCEPT - CHALLENGES

- Exact match of folders names with geocoder values
- Surface vs. Bottom location for horizontal wells
- Folder scanning performance
- Geocoding performance
- Data Latency
- Target certain file types

# GEO-CRAWLER CONCEPT - FEATURES

- Rules based geocoding
- Geocoding folder and files in network
- Spatial selection
- Building index using:
  - ▲ File and folder names
  - ▲ File types (extensions)
  - ▲ Well names and API (or UWI)
  - ▲ Sub-Folders becomes keywords
- Textual search (i.e. trading bay unit filetype:las)

# GEO-CRAWLER COMPONENTS



GeoPortal  
Map Viewer



GeoCrawler  
Service Manager



GeoCrawler  
Server



# GEO-CRAWLER MAP VIEWER

The screenshot displays the Apache GeoPortal interface. At the top, there is a navigation bar with the Apache logo and links for 'map', 'gallery', 'documents', 'images', 'videos', and 'upload'. The user 'Carlos Sosa' is logged in, and the version 'GeoPortal 3.0.23' is shown. The main header includes the 'geoportals' logo, a search bar, and the 'Houston Corporate' logo. On the left, a sidebar titled 'Raw Well Data Portal (RWDP)' contains a search icon, a list of map layers (one is selected), a 'Show content layer background' checkbox, and the text 'No items selected.'. The central map shows a geographic area in Oklahoma, with numerous red square markers representing well data points. Major cities like Garden City, Dodge City, and Wichita are labeled. The map includes standard navigation controls (compass, zoom in/out, pan) in the top right and a toolbar at the bottom with icons for 'My Apps', 'My Maps', 'App Gallery', 'New Map', 'Back', 'Add Pin', 'Go To XY', 'Save', 'Measure', 'Draw', 'Capture', 'Print', 'Embed', and 'Full Screen'. The coordinates '35.77676, -103.30032' are displayed at the bottom center of the map area.

# GEO-CRAWLER SERVICE MANAGER

The screenshot displays the Apache Geocrawler Service Manager interface. The main window, titled "Well Data (Raw)", shows a list of crawlers under the "CRAWLERS" tab. The list includes:

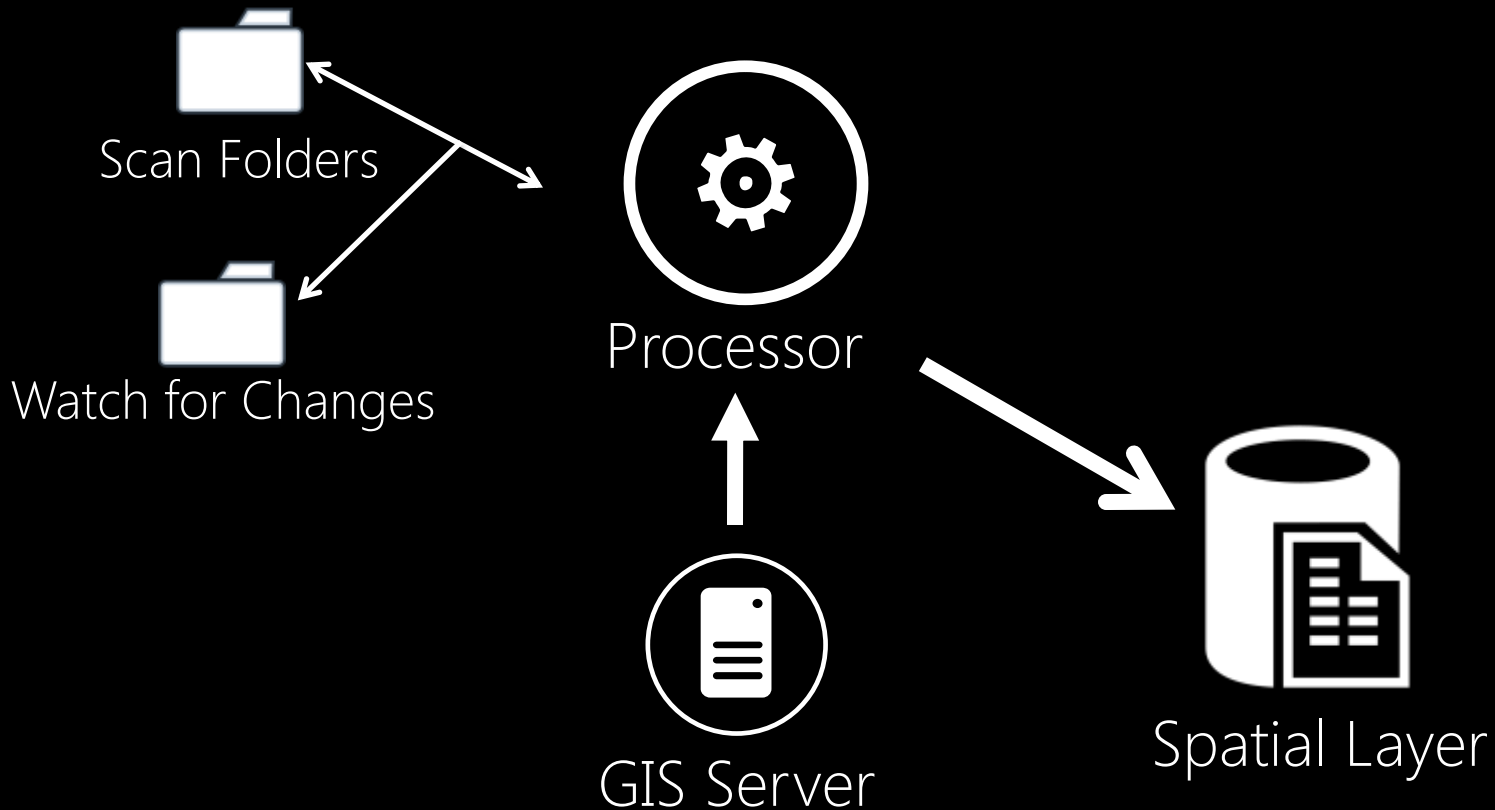
- Tulsa LAS ID Files (Path: \\apollo2\wells\tulsa\by\_state\_county\Idaho\_11)
- Tulsa LAS LA Folders (Path: \\apollo2\wells\tulsa\by\_state\_county\Louisiana\_17)
- Tulsa LAS ID Folders (Path: \\apollo2\wells\tulsa\by\_state\_county\Idaho\_11)
- Tulsa LAS NM Files (Path: \\apollo2\wells\tulsa\by\_state\_county\New Mexico\_30)
- Tulsa LAS AR Folders (Path: \\apollo2\wells\tulsa\by\_state\_county\Arkansas\_01)
- Tulsa LAS AR Files (Path: \\apollo2\wells\tulsa\by\_state\_county\Arkansas\_01)
- Tulsa LAS OK Files (Path: \\apollo2\wells\tulsa\by\_state\_county\Oklahoma\_35)
- Tulsa LAS CO Files (Path: \\apollo2\wells\tulsa\by\_state\_county\Colorado\_09)
- Raw Well Data - UK Files (Path: \\babelwer01\Dr\Dr\Dept\Final Well Data\UK)

An "edit" dialog box is open over the "Tulsa LAS ID Files" entry. The dialog contains the following fields and options:

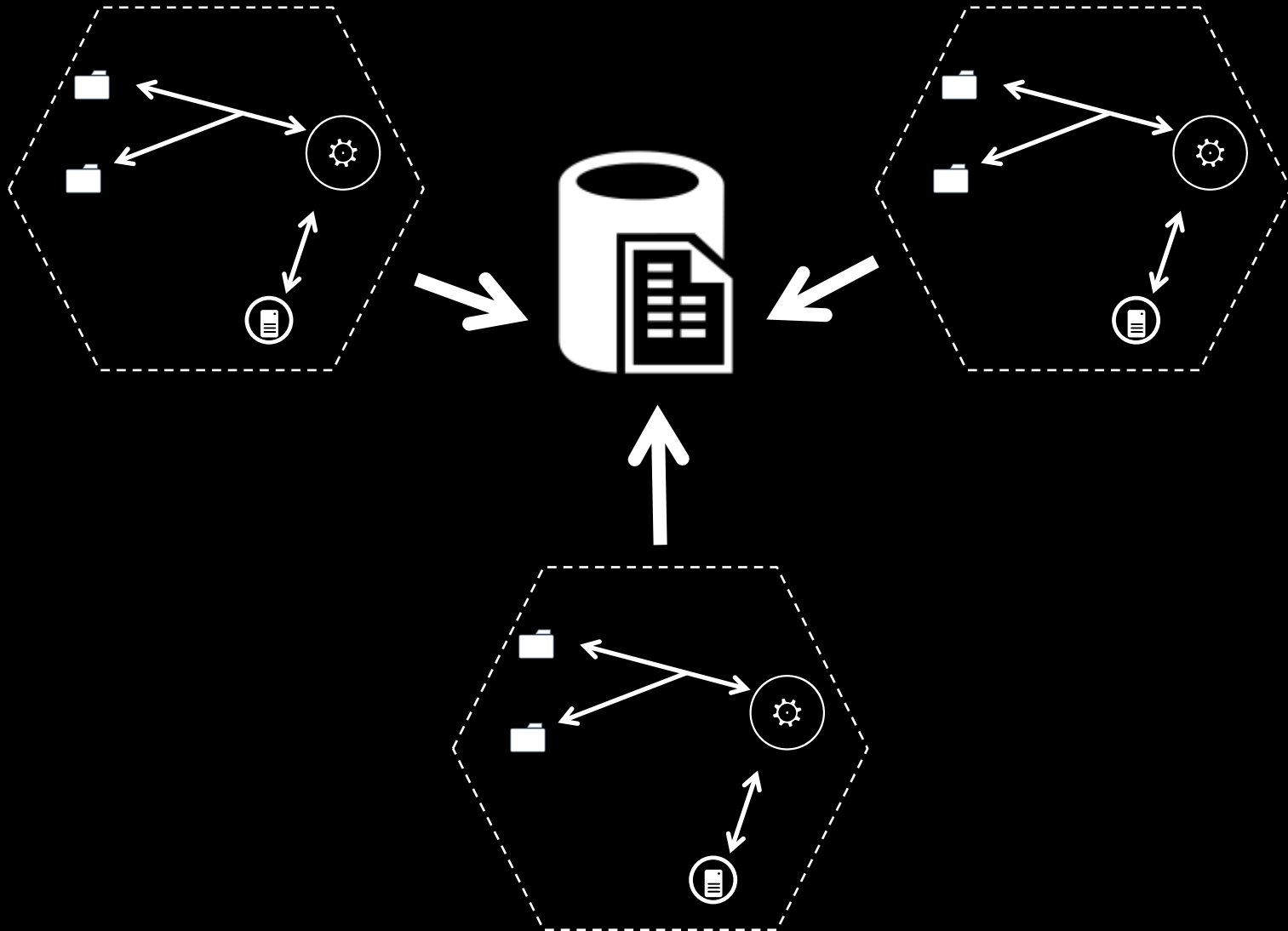
- Title: Tulsa LAS ID Files
- Rule Type: Geocode Folders and Index Files (with a checked option "Use full path for templates")
- Folder root path (i.e. \\myserver\folder): \\apollo2\wells\tulsa\by\_state\_county\Idaho\_11
- Idaho\_11 (root)
- 1st level sub folders
- United States Domestic Wells (IHS)

# GEOCRAWLER COMPONENTS

Input:  \UWI\_0110110001\drill-log.las



# GEO-CRAWLER (SCALEABLE)



# DEMO VIDEO

# NEXT STEPS

- Reading GeoTagged files (wip)
- Crawl content of LAS file to build curves searchable by depth
- Deploy GeoCrawler Service Manager
- Daily Summary Report

# CREDITS

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- ▶ Hyrum Ernstrom (IT Nexus Booth 131)
- ▶ Don Kilgore (Apache Petrophysics)





# Q&A



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