



Data Interoperability Basics

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What is the Data Interoperability Extension?

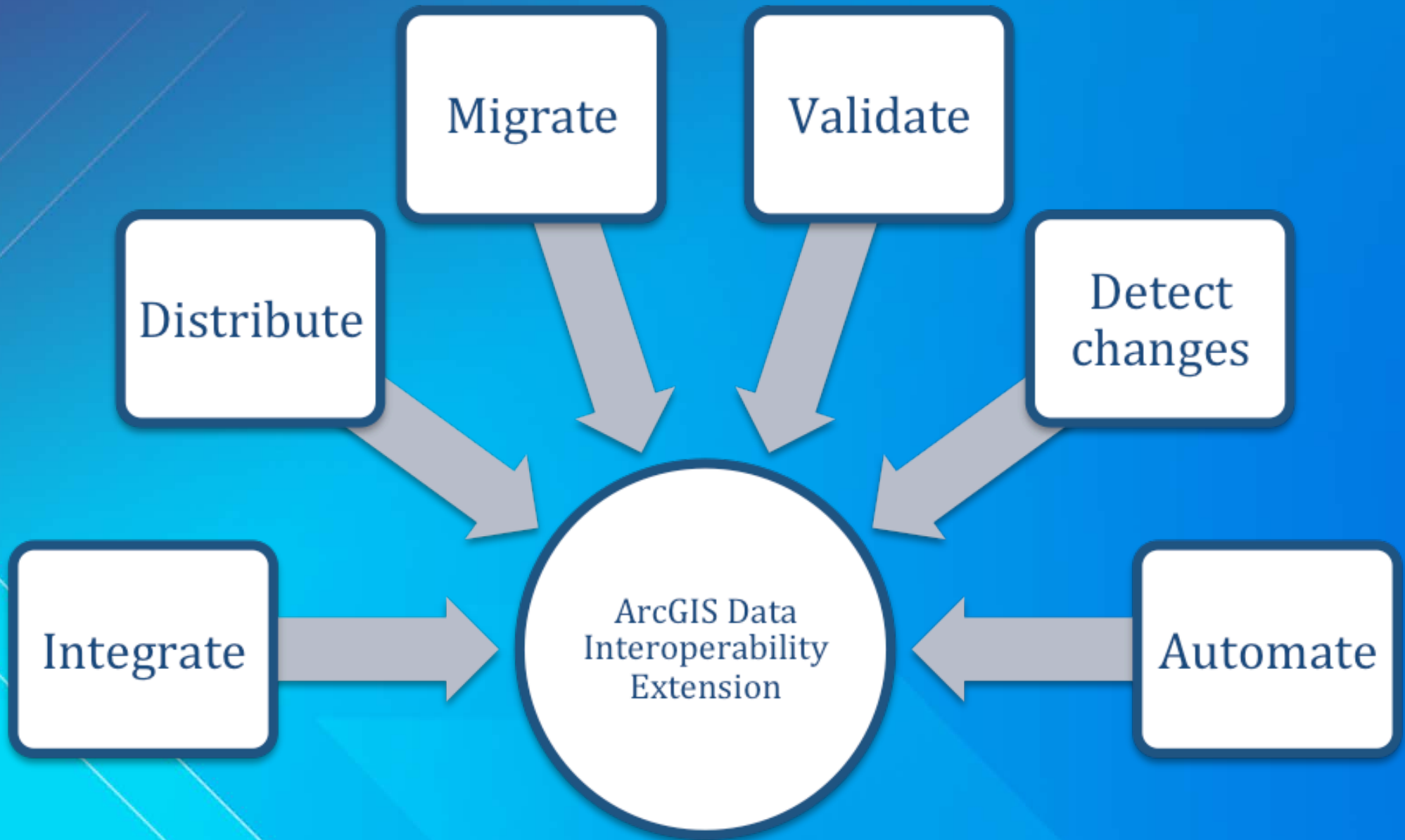
- **Work with data in hundreds of formats, both native and non-native to ArcGIS**
- **Simple format conversion or complex data transformations**
- **Transform data content and/or structure**
- **No coding required**

What is the Data Interoperability Extension?

- Adds 3 components to ArcGIS:
 1. Direct data access
 2. Quick data translation
 3. Powerful Spatial ETL processes



Common Uses



Direct Read

- Quickly read data in any supported format
- Examine geometry, attributes, metadata in non-native ArcGIS formats



Demo

Direct read data in ArcCatalog



Demo Summary

1. Enable the extension
2. Browse to data in catalog tree
 - Refresh connection to prune empty feature classes
3. Create Interoperability Connection
 - Allows you to specify parameters

Quick Import / Export

- Move data between Geodatabases and any supported format
- Fast, simple data conversions
- Import non-native data to Geodatabase to edit in ArcMap
- Export feature classes to any supported format

Demo

Quick Import from MapInfo TAB
Quick Export to PDF

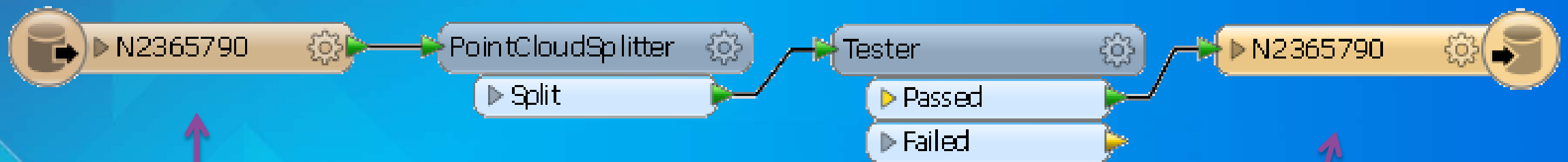
Demo Summary

1. Quick Import TAB to Geodatabase
2. Quick Export a Geodatabase feature class to PDF

Spatial ETL Tool

- Build powerful ETL (extract, transform, load) workflows
- Perform data transformations: manipulate data model, coordinate system, feature types, geometry, attributes ...

What is Spatial ETL?



Extract

Transform

Load

Demo

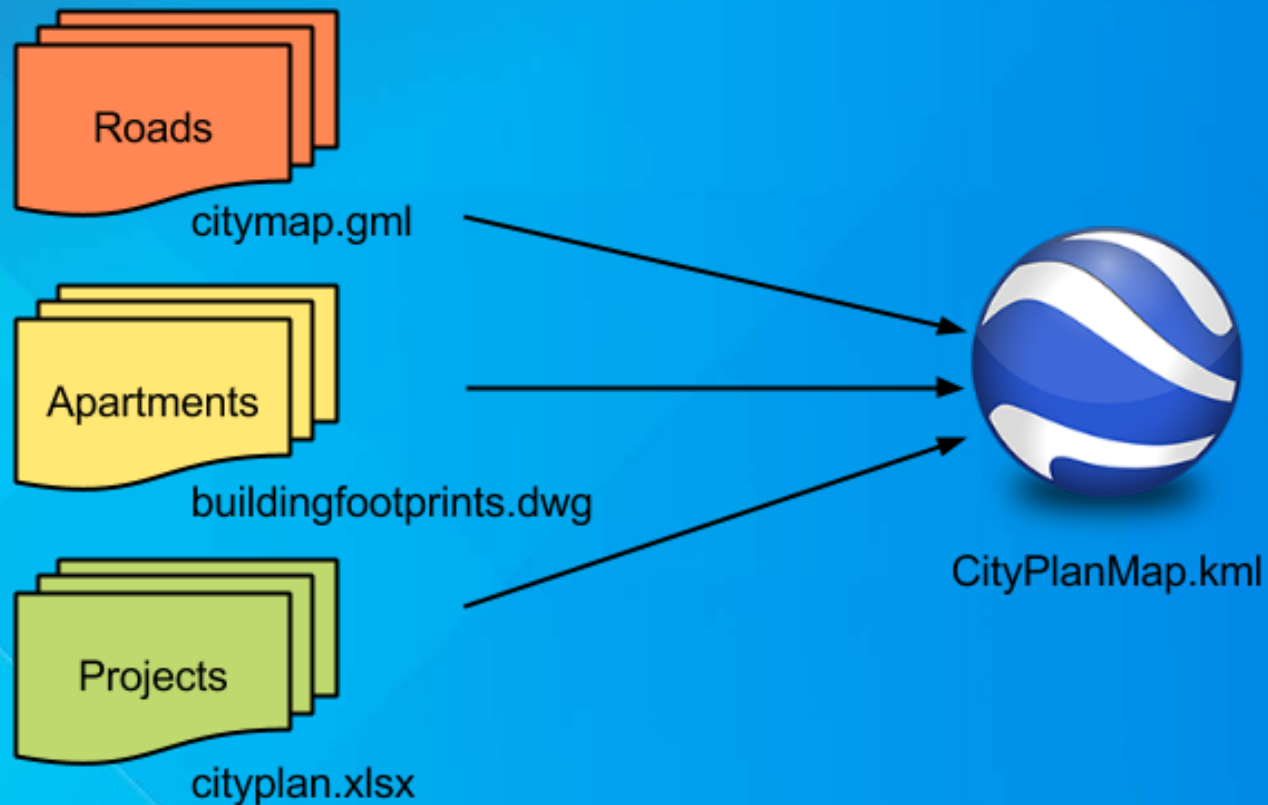
**Transform Shapefile to Geodatabase
with the Spatial ETL Tool and modify
output data model**

Demo Summary

1. Create Spatial ETL Tool: SHP to GDB
2. Feature Types represent schema (i.e. data model). Modify output schema on writer feature type
3. Transformers manipulate data content
4. Run tool and view output with Data Interoperability Inspector

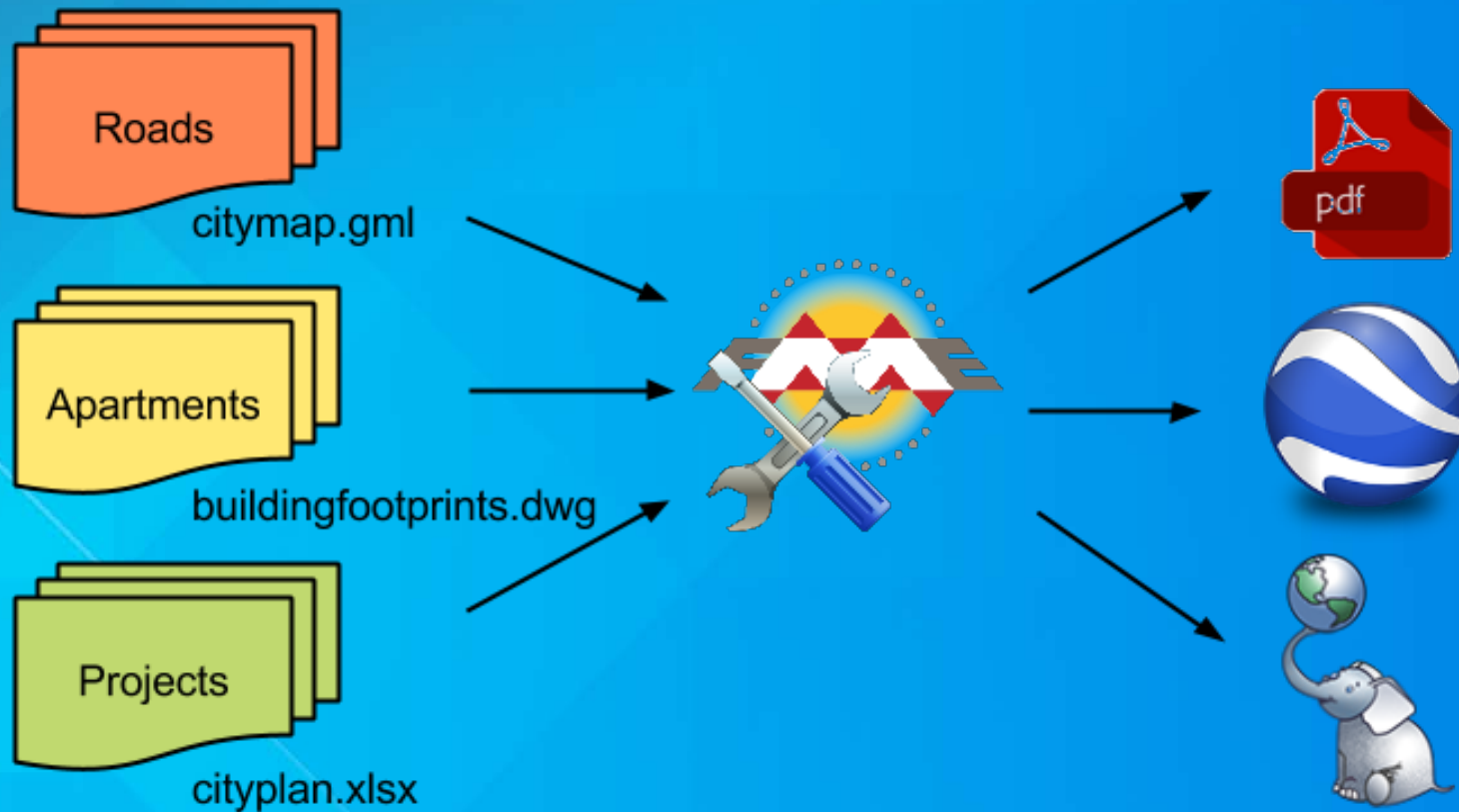
Common Use #1

Integrate multiple formats



Common Use #2

Distribute data to different systems

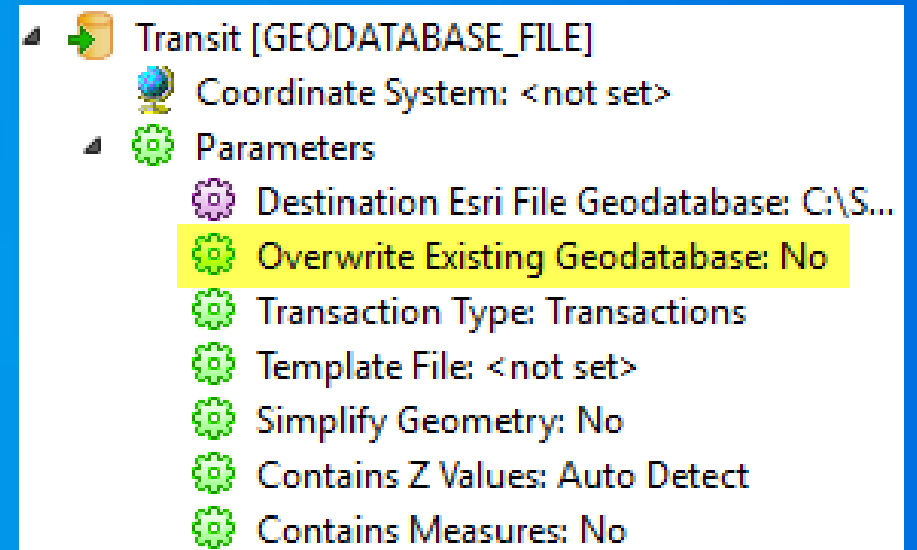


Demo

**Integrate multiple sources and
distribute to multiple destinations**

Common Use #3: Migrate data between systems


- Move data between various database formats
- Control which tables to move to which output systems
- Parameter allows you to specify whether to append to existing File Geodatabase output





Common Use #4: Data validation

Check attribute values




Tester 


▶ Passed 


▶ Failed 


Fix geometry



GeometryValidator 

▶ Passed 

▶ Failed 

▶ Repaired 

Demo

Validate data and output QA report

Common Use #5

Detect changes



Demo

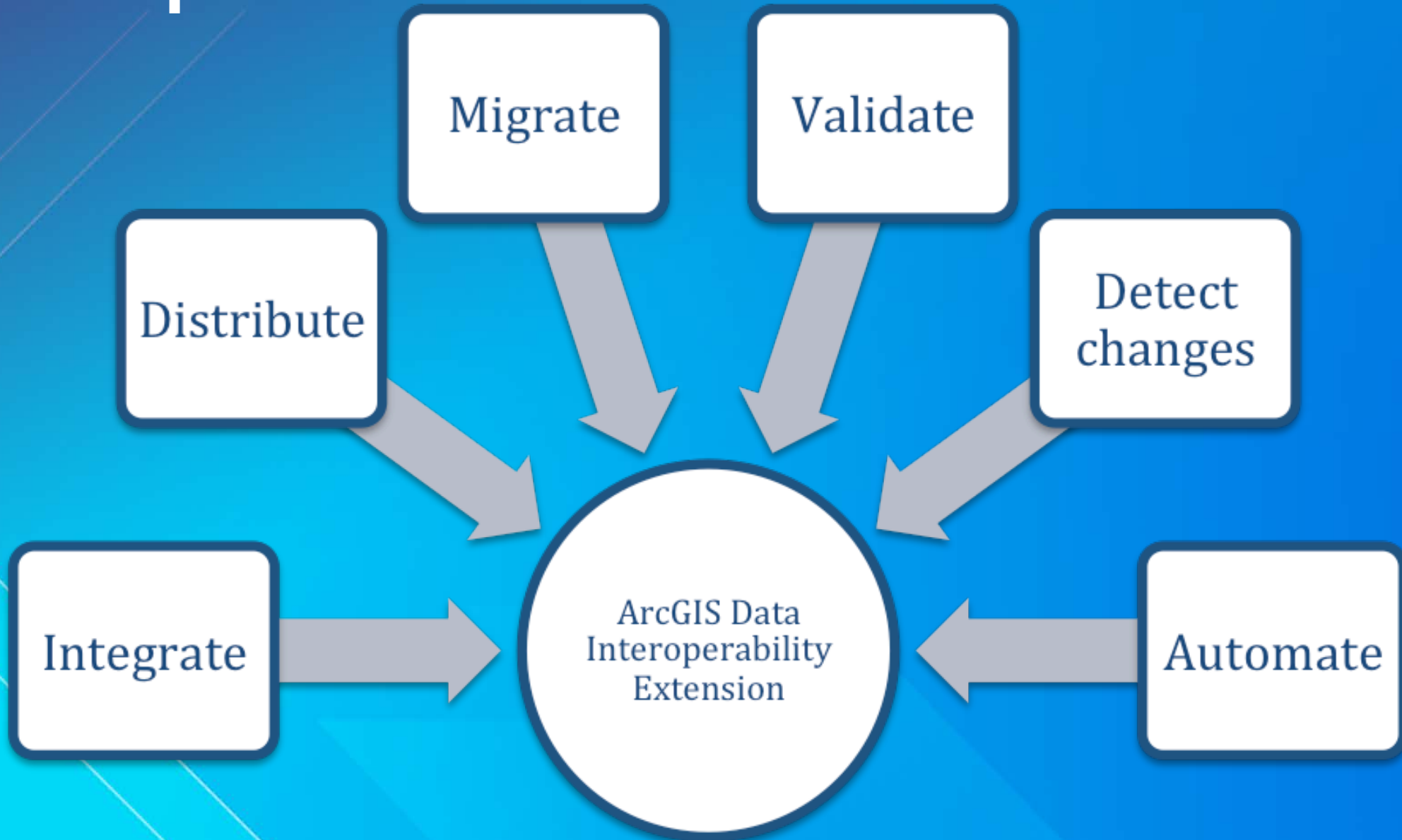
Detect changes in polygon data



Common Use #6: Automate

- ArcGIS Data Interoperability for Server extension
- Add format support and transformations to your applications
- Publish maps containing non-Esri data, to view from browser or another application
- Integrate Spatial ETL tools and Quick Import/Export tools with other Geoprocessing tools in the ModelBuilder
 - Publish workflows to ArcGIS Server to execute in that environment

Recap

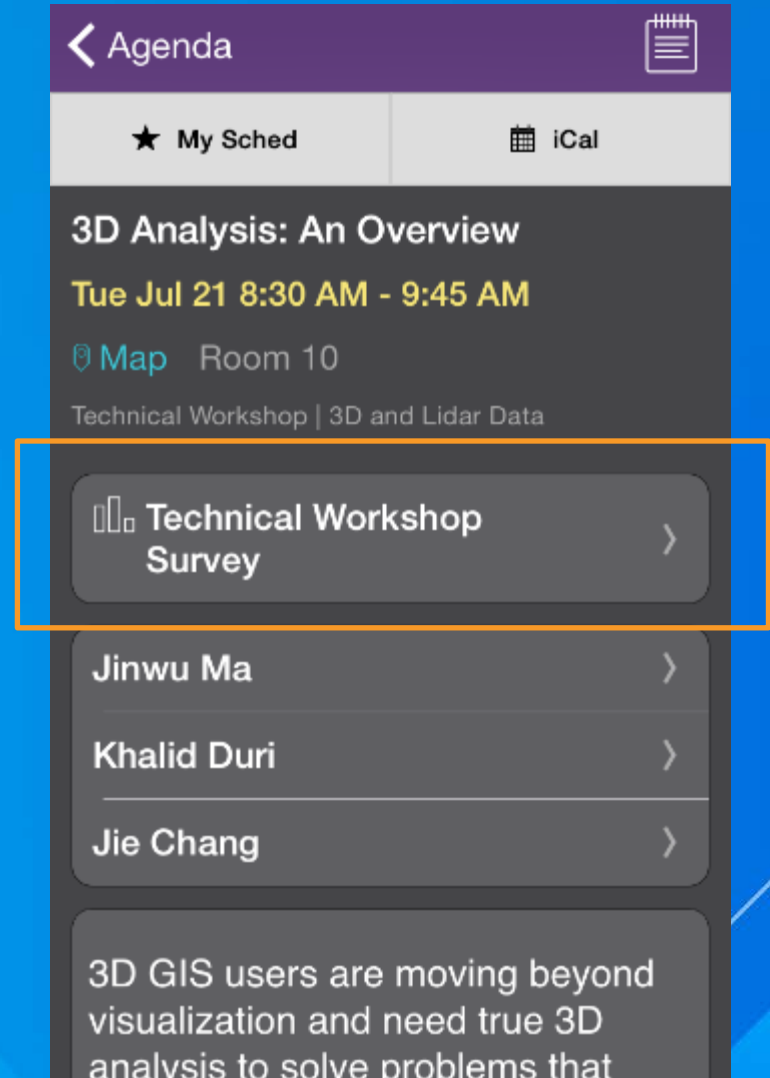


Try it free

- **Download a trial at esri.com/datainteroperability**
 - Support for 100+ data formats
 - GML-SF and WFS are always free
- **Resources**
 - **Esri Virtual Campus – search “Spatial ETL” on training.esri.com**
 - Transforming Data Using Extract, Transform, and Load Processes
 - Controlling Data Translations Using Extract, Transform, and Load Processes
 - **Data Validation checklist and webinar – fme.ly/validation**
 - **FME and ArcGIS Online resources – fme.ly/agol**

Thank you...

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Understanding our world.