

Federal GIS Conference 2014

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Solving Your Top 10 Production Issues with ArcGIS Extensions

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ArcGIS Extensions Covered

- **Workflow Manager for ArcGIS**
 - Enterprise Workflow Management across teams
- **Task Assistant Manger**
 - Workflow Management within ArcGIS Desktop
- **Data Reviewer for ArcGIS**
 - Data Quality Control and Assurance
- **Production Mapping**
 - Comprehensive production tools to enhance efficiencies during production
 - Includes Workflow Manager, Task Assistant and Data Reviewer
- ...and some standard ArcGIS functionality

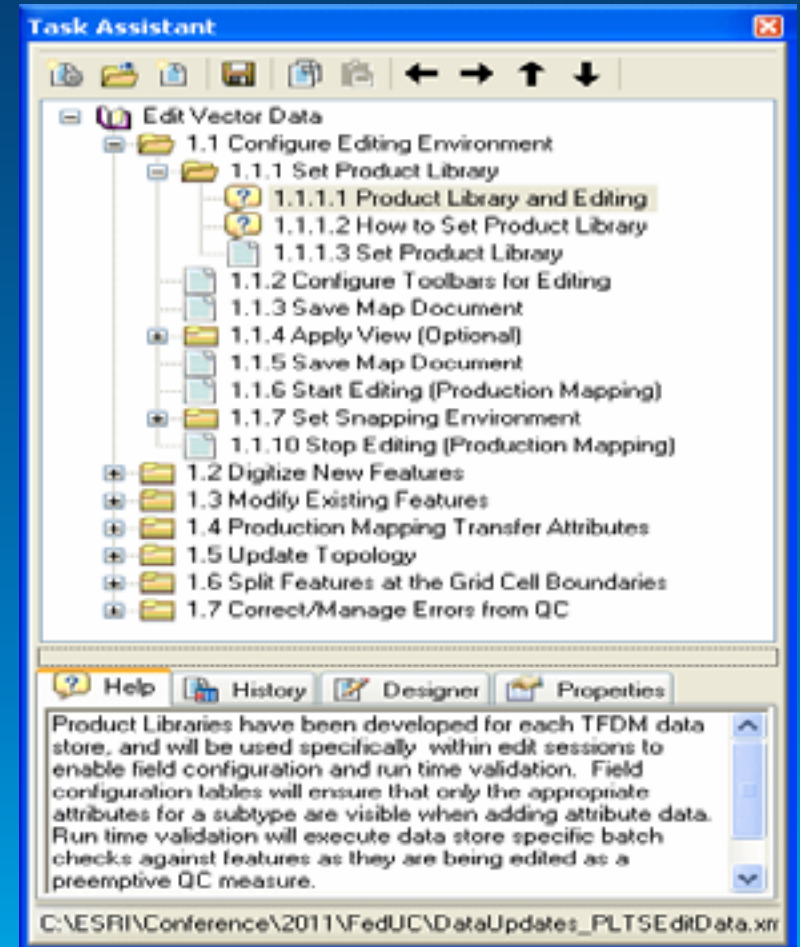


1. Share Workflows in ArcMap

Task Assistant Manager

Task Assistant Manager

- Create step-by-step instructions for standardizing a workflow
- Promotes sharing of knowledge
 - Experienced users create workflows
 - Less experienced users execute
 - Communicate best practices
- Provides consistency and efficiency





2. Increase Editing Efficiency

Editing Templates and Feature Manager

Editing Template and Feature Manager

- Templates define all information for creating a feature
- Feature Manager manages templates as groups
- Composite Templates
 - Reduces time spent digitizing coincident features
 - Combine two or more template together

Feature Manager





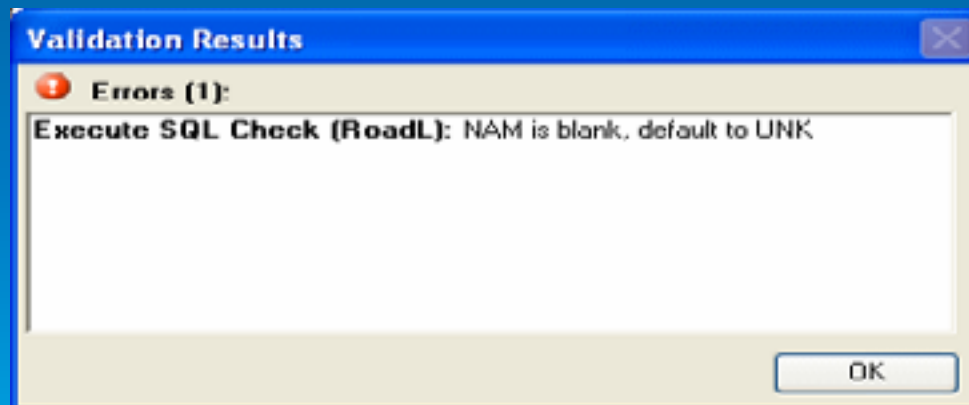
3. Ensuring Proper Attribution While Editing

Field Configuration\On-The-Fly Validation

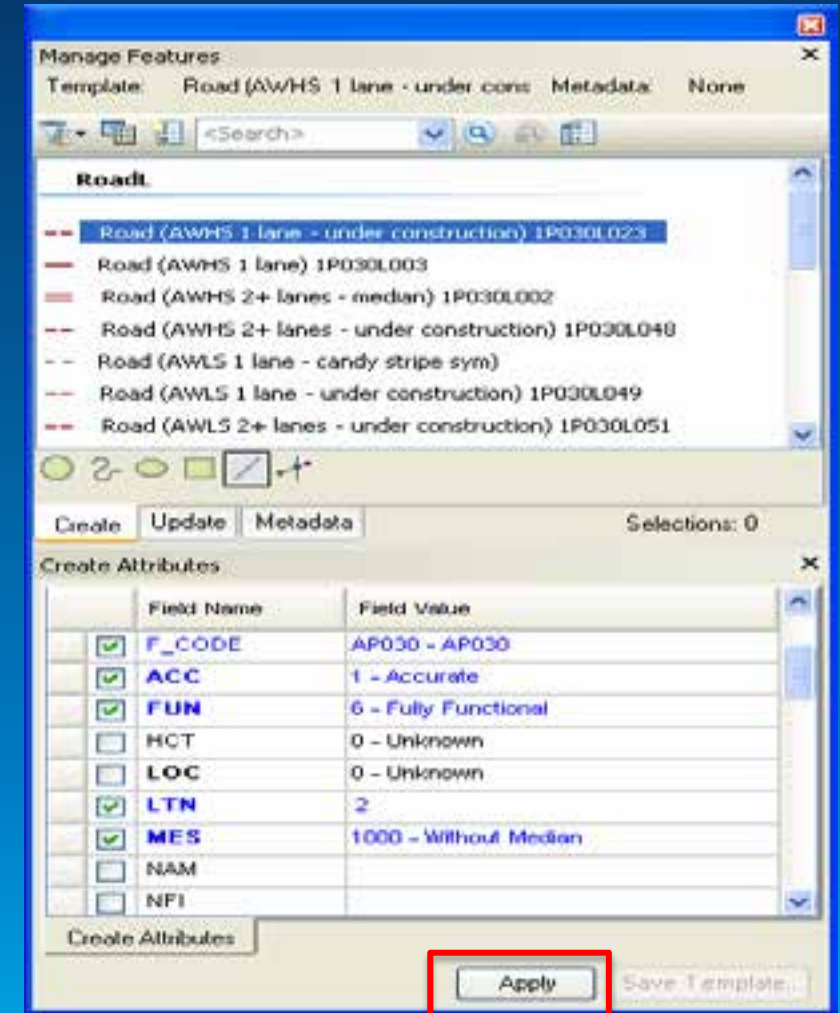
Editing using Production Mapping

Feature Manager

- Field Configuration
- On-the-fly validation
 - Reject noncompliant data



On-the-fly Validation



Field Configuration



Demo

Eric Ray





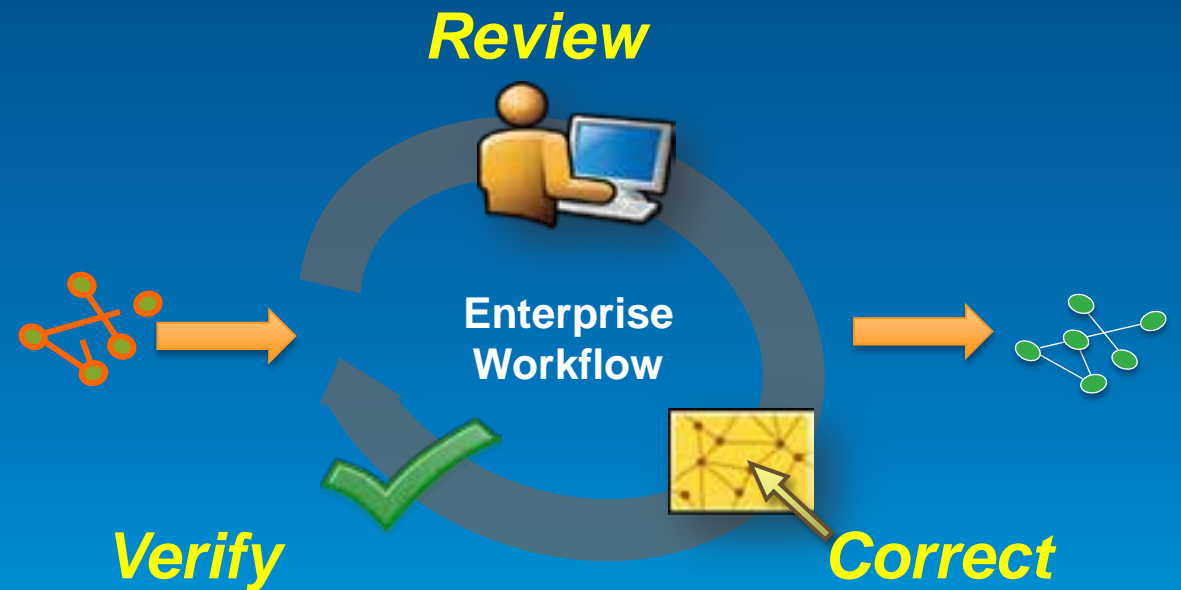
4. Adhering To Your Data Quality Standards

ArcGIS Data Reviewer

ArcGIS Data Reviewer

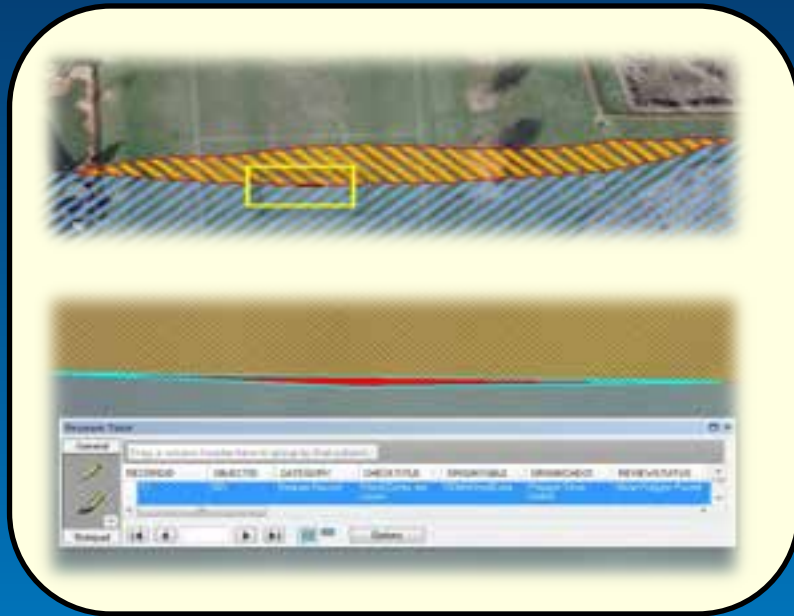
Data quality management for ArcGIS

- Comprehensive tool to find and correct geometry and attribute errors
- Extensive library of user-configurable data quality checks
- Error table tracks found errors through correction and verification
- Can help maintain an error free geodatabase and improve data usability

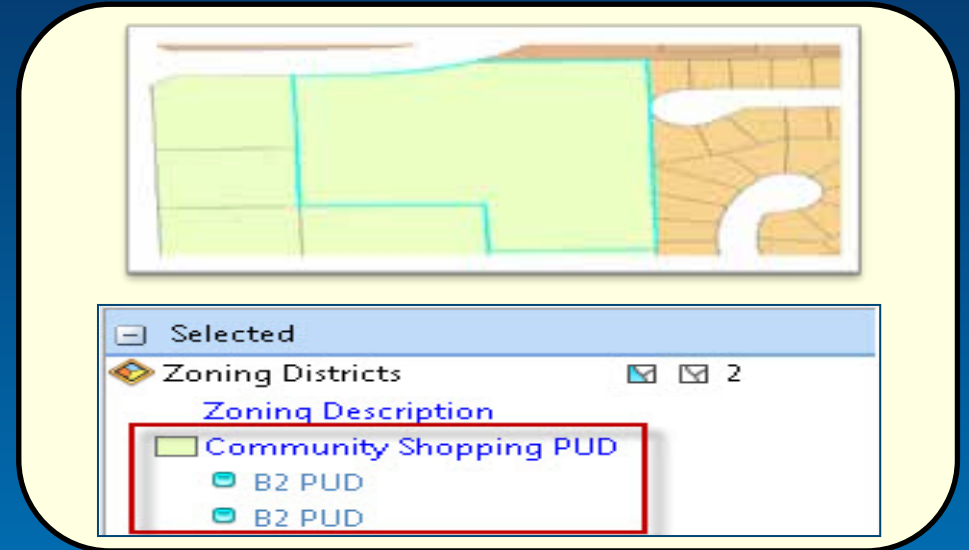


Trusted data through improved quality management

Common Data Errors



Gaps\Slivers



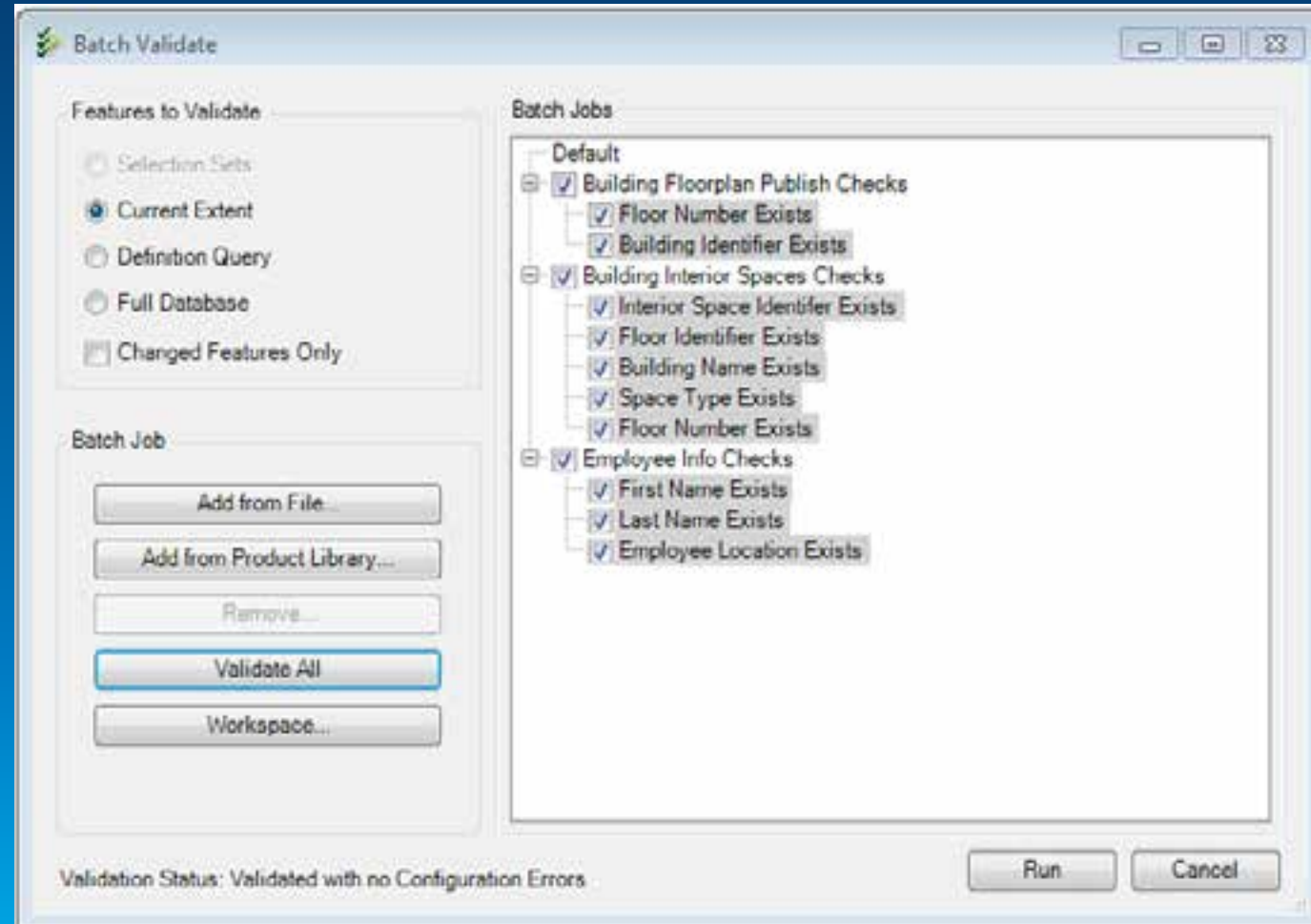
Duplicate Features



Buildings too small for scale

Data Reviewer Batch Jobs

- A group of checks that can be saved and run against the data
- Organized and combined into groups
- Each check can be applied to different feature classes
- Quality control model for a project or organization
- Share the batch job as a .RBJ file





5. Quantify Your Data Quality

Data Reviewer Tracking and Reporting

Data Reviewer Tracking and Reporting

- Flag errors in ArcMap
- Commit errors to Error Table to track it's correction
- Tag errors with metadata about the verification status
- Create custom reports for use outside of ArcMap

Automated Check Report By Origin Table

Report generated on 2/2/2014 6:59 AM by eric5819
Reviewer Workspace Location: C:\Conference\Top10\Databases\Reviewer.gdb
Session(s): Session 1 Session 1

Batch Job Name	Date/Time	Origin Table	Check Type	Check Title	Severity	Records Validated	Total Results	Total Percent Accuracy	Distinct Results	Distinct Check Accuracy
C:\Conference\Top10\BatchJobs\QualityChecks.stg	1/30/2014 9:54:30 PM	AqueductL	Invalid Geometry Check	Invalid Geometry Check (AqueductL)	5	0	0	#NUM!	0	#NUM!
		BamerL	Invalid Geometry Check	Invalid Geometry Check (BamerL)	5	35	0	100.00%	0	100.00%
		Bluff	Invalid Geometry Check	Invalid Geometry Check (Bluff)	5	0	0	#NUM!	0	#NUM!
		Budget	Cutbacks Check	Cutback BudgetL	3	20	0	100.00%	0	100.00%
		BuildA	Invalid Geometry Check	Invalid Geometry Check (BuildA)	5	10	0	100.00%	0	100.00%
		BuildA	Duplicate Geometry Check	Duplicate Geometry Check (BuildA, BuildA)	5	40	0	100.00%	0	100.00%
		BuildA	Invalid Geometry Check	Invalid Geometry Check (BuildA)	5	48	0	100.00%	0	100.00%
		BuildP	Domain Check	Domain Check BuildP	3	4368	6	99.86%	0	100.00%
		BuildP	Duplicate Geometry Check	Duplicate Geometry Check (BuildP, BuildP)	2	1456	6	99.59%	0	100.00%
		BuildP	Invalid Geometry Check	Invalid Geometry Check (BuildP)	5	0	0	#NUM!	0	#NUM!



Demo

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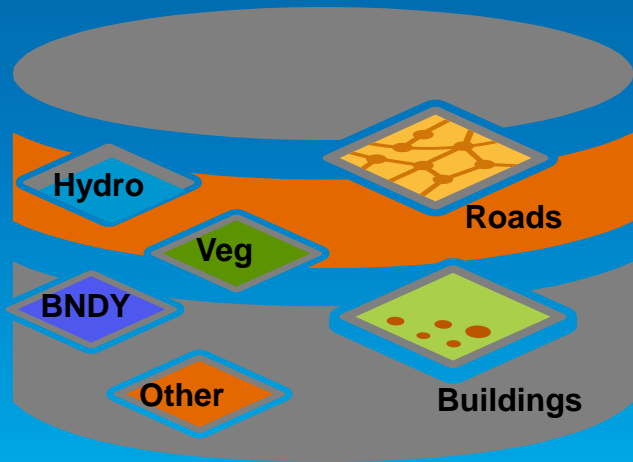
6. Producing Multi-Scale Maps From a Single Database

Map Automation / Generalization Tools

Map Automation / Generalization

- **Adapting large scale data to meet the needs of small scale maps and charts**
- **The creation of multiple scaled products from a single best available scale database**
- **Automated processes that change the scale, resolution and representation of the data**
- **100% computer automated creation of small scale maps and charts from a single database**

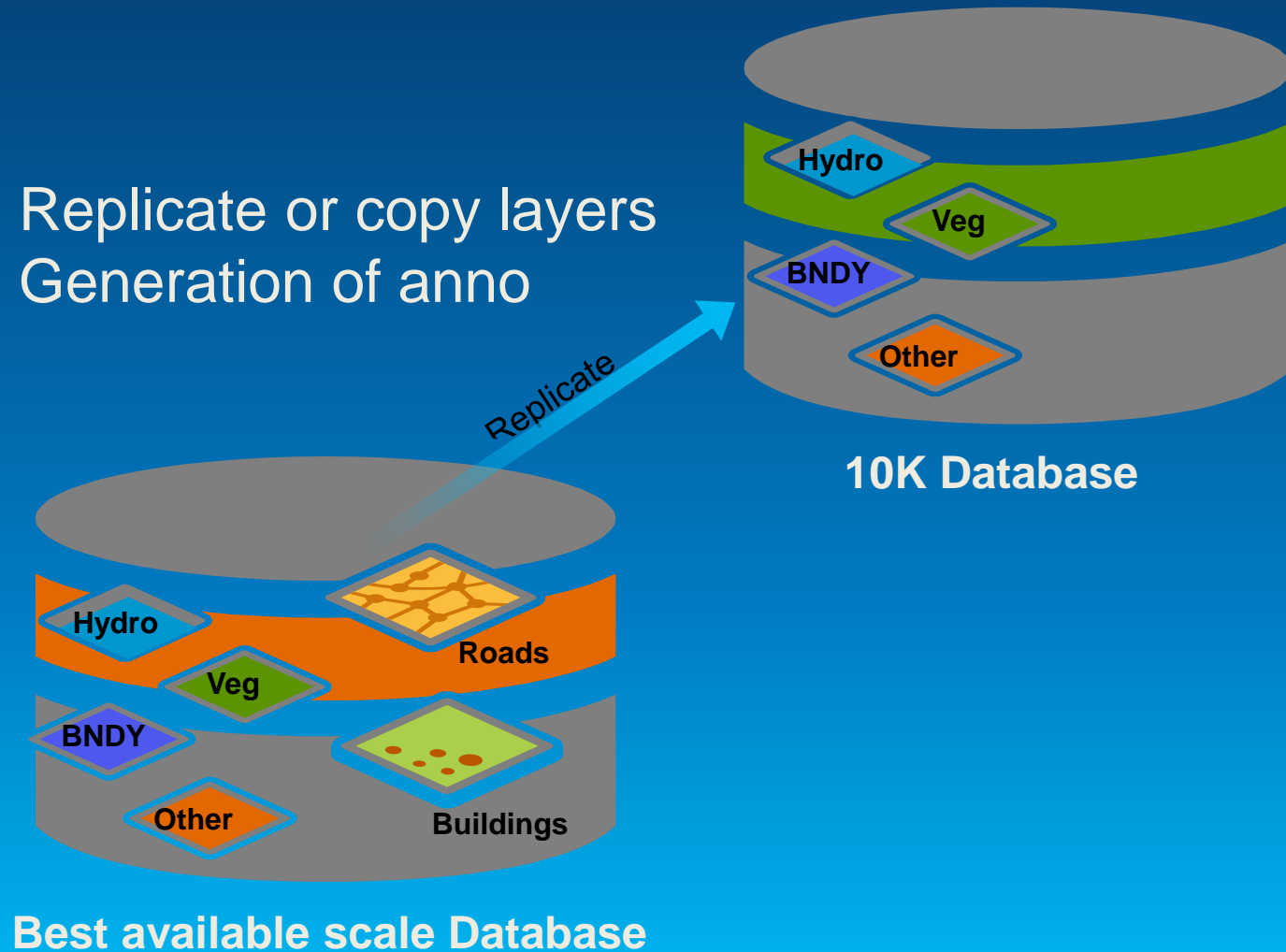
Collect Data at best available scale



Best available scale Database

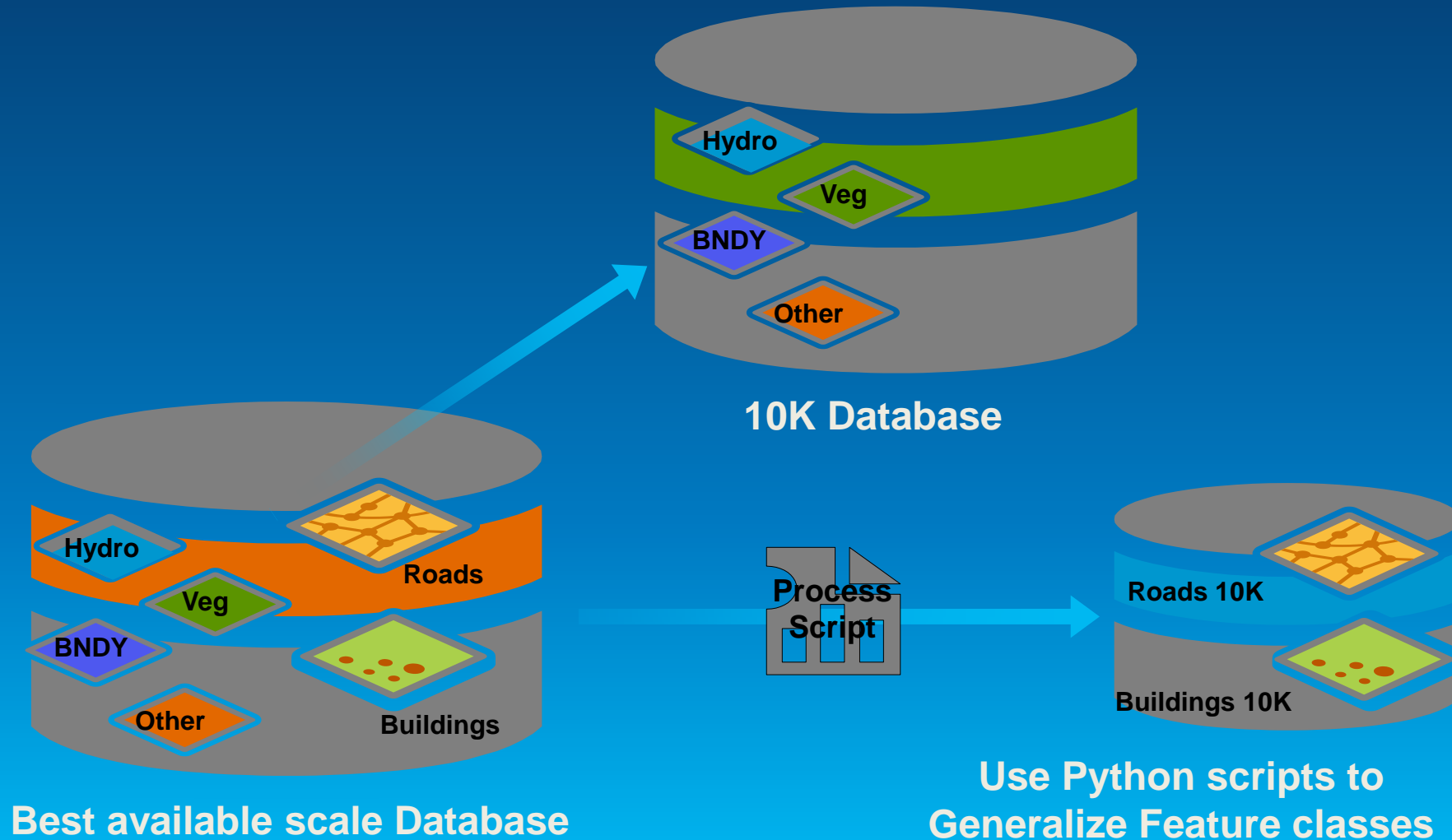
Replicate Non-Generalized Layers

- Replicate or copy layers
- Generation of anno

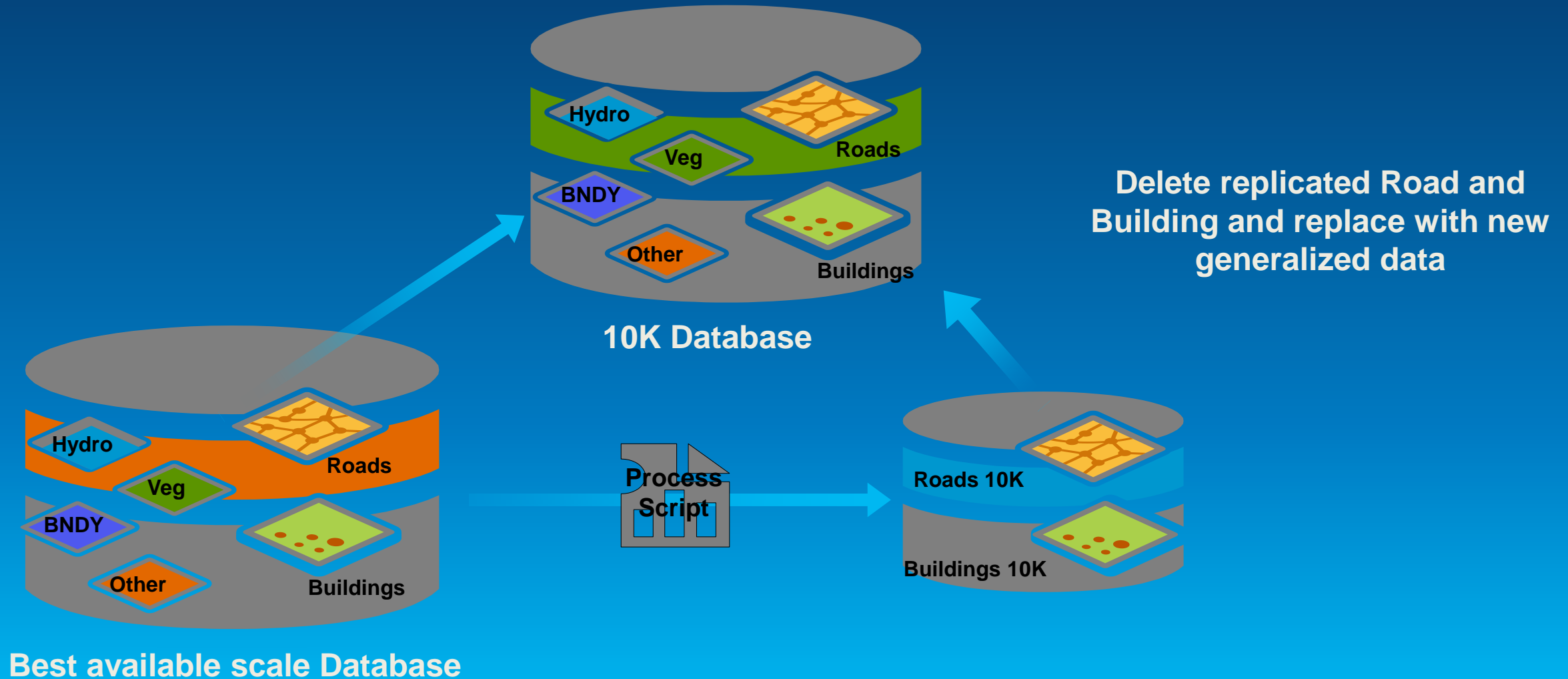


Symbology and definition queries in map document handle visibility and “thinning” of features at different scales.

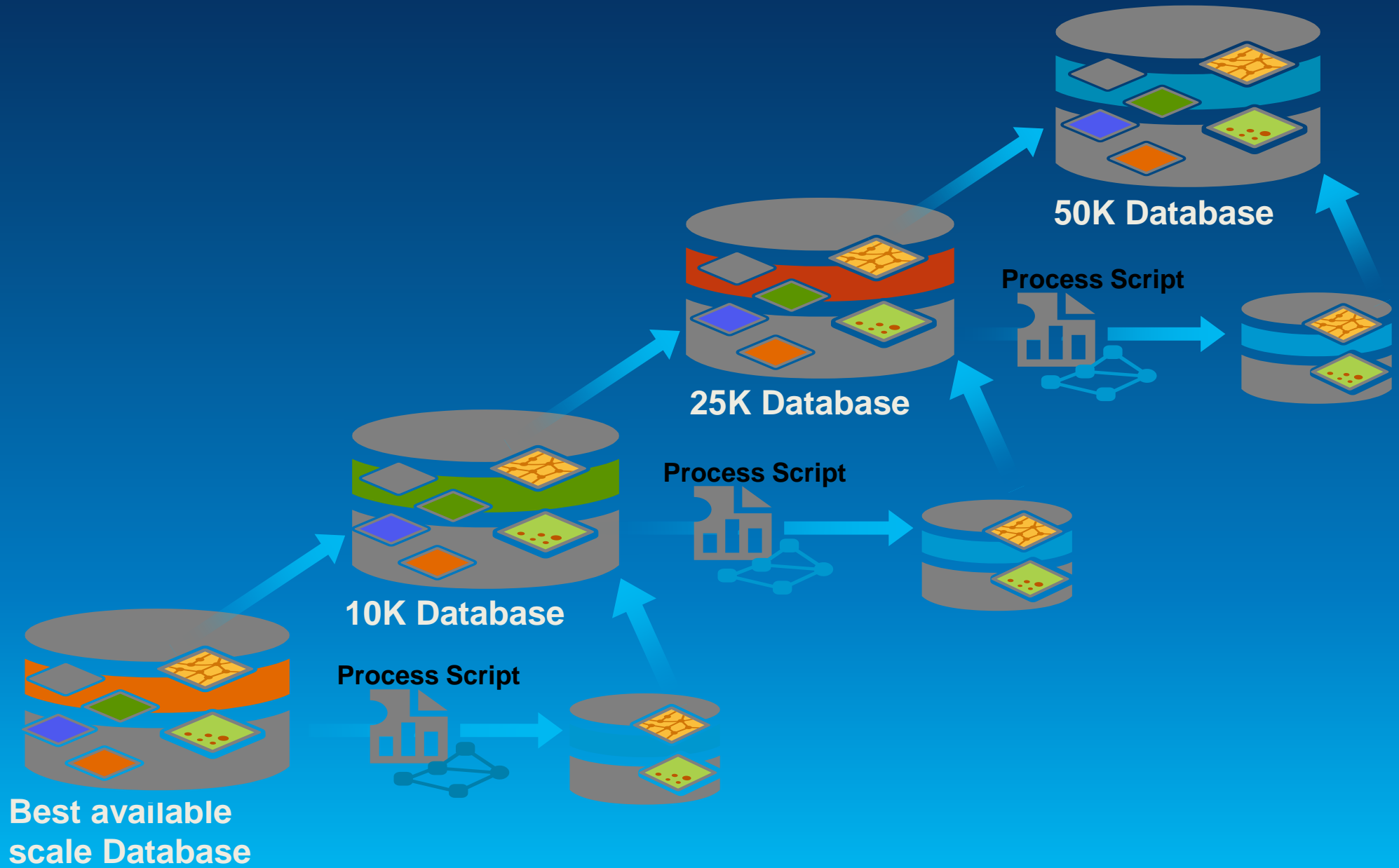
Generalize Roads, Buildings and other Feature Classes



Generalize Roads, Buildings and other Feature Classes



Continue Process for all Scales





Demo

Eric Ray



7. Standardize Your Symbology

Visual Specifications Tool (VST)

Visual Specifications

- Standardizes map specifications by linking symbols and labels to Feature Class attribution
- Set up rules for how features are labeled and symbolized
 - Manages representations across many layers
 - Links attribution to representation rules
- Stored and managed in central geodatabase



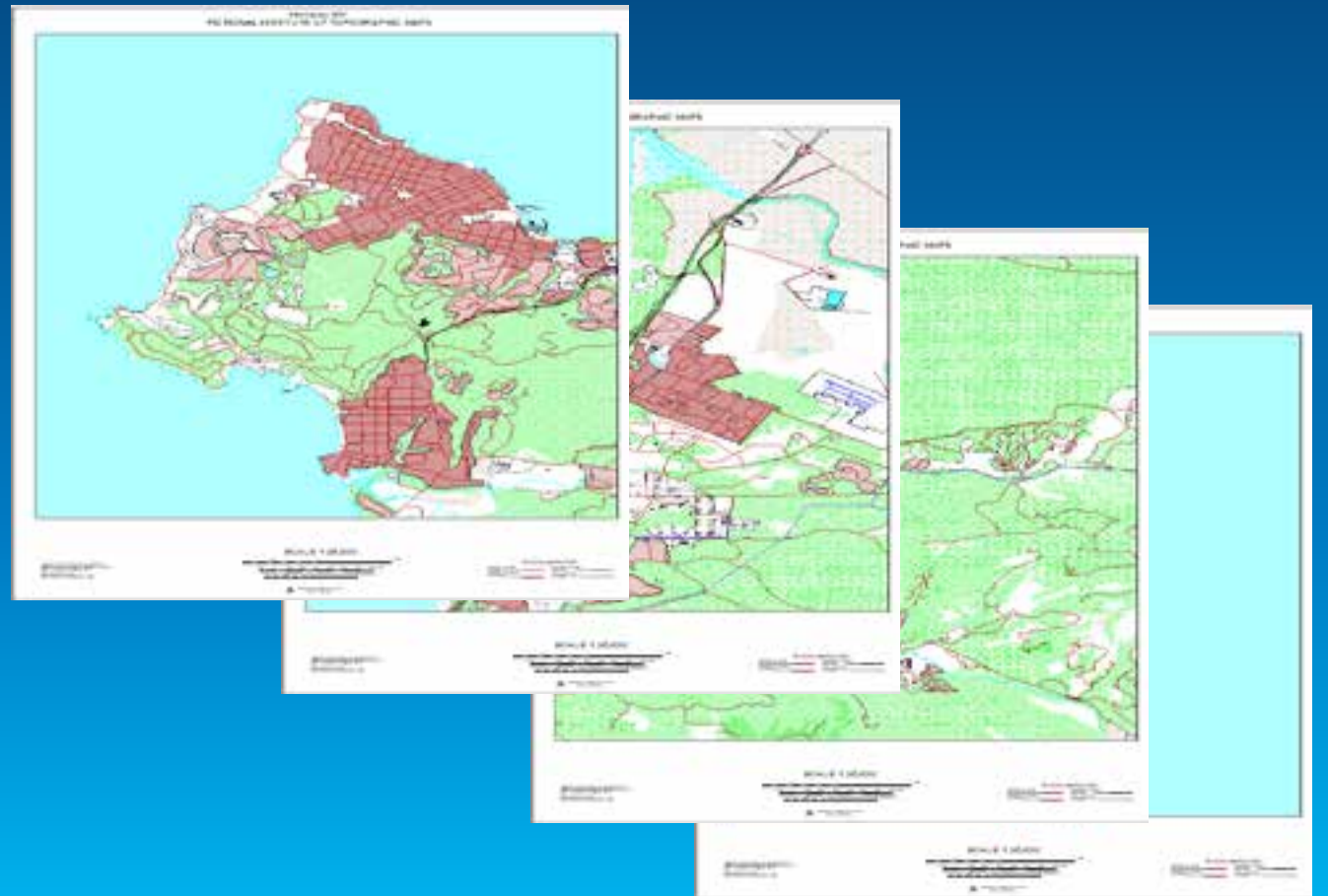


8. Maintain Multiple Layouts in ArcGIS

Data Driven Pages

Data Driven Pages

- Create a series of layout pages from a single ArcMap .mxd
- A feature layer divides the map into sections based on each index in the layer
- Generates one page per index feature



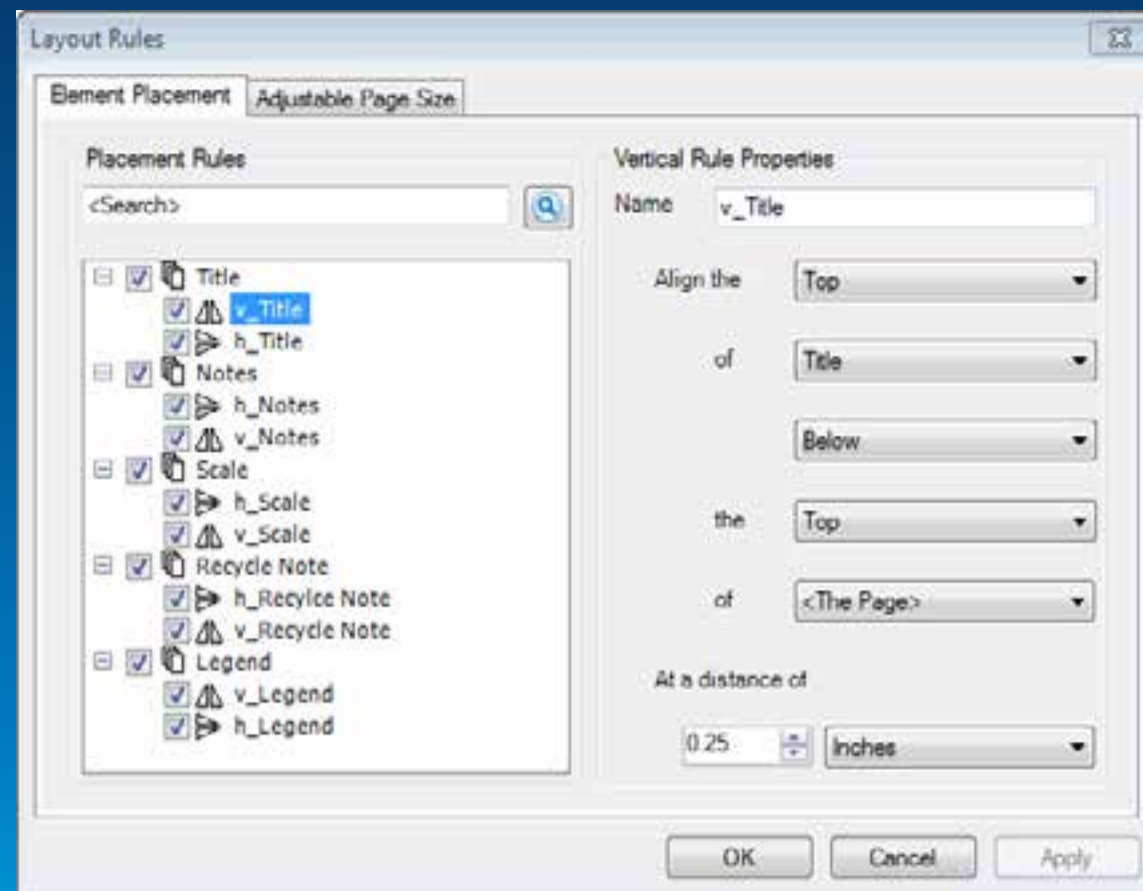


9. Placing Surround Elements on Map Templates

Layout Rules

Layout Rules

- Define relative placement of surround elements on layout
- Define the drawing order
- Create rules that maintain consistent placement across all .MXDs



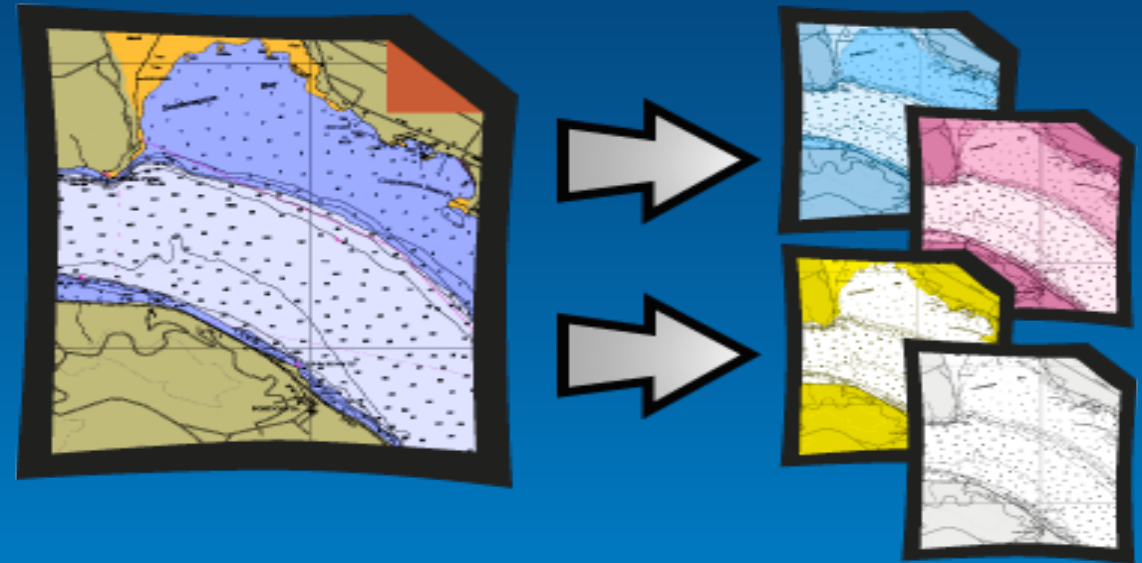


10. Publishing Print Ready Files to Send to the Printer

Production PDF

Production PDF

- Mapping of one color to another
- Can convert between RGB or CMYK to a new output RGB, CMYK, or Spot Colors
- Color Mapping during export to PDF
- Does not affect colors in ArcGIS
- Maps grayscale rasters to an output Spot color





Demo

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Understanding our world.