



ArcGIS® Data Reviewer Checks

ATTRIBUTE CHECKS

Domain Finds attribute values that do not comply with coded value or range domains that are associated with an attribute field.	<table><tr><th>LANDUSE</th><th>DESCRIPTION</th></tr><tr><td>000</td><td>UNCLASSIFIED</td></tr><tr><td>AGR</td><td>AGRICULTURE</td></tr><tr><td>SDP</td><td>PLAN</td></tr><tr><td>IND</td><td>INDUSTRIAL</td></tr></table> AGR IND NRN	LANDUSE	DESCRIPTION	000	UNCLASSIFIED	AGR	AGRICULTURE	SDP	PLAN	IND	INDUSTRIAL					
LANDUSE	DESCRIPTION															
000	UNCLASSIFIED															
AGR	AGRICULTURE															
SDP	PLAN															
IND	INDUSTRIAL															
Query Attributes Finds records based on a SQL expression run against row attributes.	TYPE=3															
Regular Expression Finds features and rows that contain text values that do not match a defined pattern.	<table><tr><th>FIELD</th><th>REGULAR EXPRESSION</th><th>YEAR</th></tr><tr><td></td><td></td><td>1805</td></tr><tr><td></td><td></td><td>1972</td></tr><tr><td>YEAR</td><td>(19 20)cd</td><td>2005</td></tr><tr><td></td><td></td><td>200A</td></tr></table>	FIELD	REGULAR EXPRESSION	YEAR			1805			1972	YEAR	(19 20)cd	2005			200A
FIELD	REGULAR EXPRESSION	YEAR														
		1805														
		1972														
YEAR	(19 20)cd	2005														
		200A														
Relationship Finds rows in feature classes and stand-alone tables that violate cardinality or relationship rules defined in a Relationship class.	<table><tr><th>CROP</th></tr><tr><td>1 CORN</td></tr><tr><td>2 RICE</td></tr><tr><td>3 WHEAT</td></tr></table>	CROP	1 CORN	2 RICE	3 WHEAT											
CROP																
1 CORN																
2 RICE																
3 WHEAT																
Subtype Finds features with improper or null subtype values.	<table><tr><th>SUBTYPES</th></tr><tr><td>1 HIGHWAYS</td></tr><tr><td>2 MAJOR ROAD</td></tr><tr><td>3 LOCAL STREETS</td></tr><tr><td>4 ALLEY</td></tr></table> SUBTYPE=0	SUBTYPES	1 HIGHWAYS	2 MAJOR ROAD	3 LOCAL STREETS	4 ALLEY										
SUBTYPES																
1 HIGHWAYS																
2 MAJOR ROAD																
3 LOCAL STREETS																
4 ALLEY																
Table to Table Attribute Finds features or rows that contain attribute values that meet a relationship you define and compares them to values in another feature class or stand-alone table.	<table><tr><th>FEATURE CLASS</th><th>SCALE</th></tr><tr><td>OID</td><td>SCALE</td></tr><tr><td>1</td><td>10,000</td></tr><tr><td>2</td><td>20,000</td></tr><tr><td>3</td><td>10,000</td></tr><tr><td>4</td><td>30,000</td></tr></table>	FEATURE CLASS	SCALE	OID	SCALE	1	10,000	2	20,000	3	10,000	4	30,000			
FEATURE CLASS	SCALE															
OID	SCALE															
1	10,000															
2	20,000															
3	10,000															
4	30,000															
Unique Field Value Finds rows in feature classes and stand-alone tables that contain nonunique values in a field or a list of fields that are editable.	<table><tr><th>FEATURE CLASS 1</th></tr><tr><td>7</td><td>25</td></tr><tr><td>8</td><td>18</td></tr><tr><td>9</td><td>18</td></tr></table>	FEATURE CLASS 1	7	25	8	18	9	18								
FEATURE CLASS 1																
7	25															
8	18															
9	18															

POLYGON CHECKS

Evaluate Polygon Perimeter and Area Finds polygon features based on the area or perimeter of the entire polygon or its individual parts or segments.	>3 AND <8
Find Polygons with Holes Finds polygon features that have holes.	
Polygon Gap is Sliver Finds gaps between polygon features that are below a specified thinness ratio.	
Polygon Overlap is Sliver Find overlaps between polygon features that are below a specified thinness ratio.	
Polygon Sliver Finds polygons below a specified thinness ratio (T) and optionally whose area is within a specified threshold.	
Unclosed Polygon Finds unclosed rings in polygon features.	
Unnecessary Polygon Boundaries Finds border geometries for polygons that share a common boundary and identical attribution.	TYPE = TYPE

EVENT CHECKS

Event on Event Finds linear referenced events that overlay other events based on a user-defined relationship.	R=Route E=Event
Find Orphan Events Finds linear referenced events that have no association to a route feature.	R=Route E=Event
Find Event Gaps Finds linear referenced events with gaps between events of the same category, in the same route, or across multiple routes.	R=Route E=Event
Find Event Overlaps Finds linear referenced events that have overlaps with events of the same category, in the same route, or across multiple routes.	R=Route E=Event
Invalid Event Measures Finds linear referenced events that contain invalid measure values in the same route or across multiple routes.	R=Route E=Event

POLYLINE CHECKS

Evaluate Polyline Length Finds polyline segments, parts, or features that have a line length within a specified tolerance.	LENGTH <20
Find Dangles Finds polyline features with nodes that are within a user-defined tolerance but not connected to other polyline or polygon features.	LENGTH <20
Find Disconnected Polylines Finds polyline features that are not connected to other features in the same or other data sources.	
Monotonicity Finds vertices in z-enabled or m-enabled polylines that are not strictly increasing or decreasing in value or are trending based on specified conditions.	LENGTH <20
Polyline or Path Closes on Self Finds paths or lines in polyline features that close themselves.	
Unnecessary Nodes Finds features that share a node and have identical attributes in editable fields.	TYPE = TYPE

LEGEND

	VALIDATION ATTRIBUTE RULES Data Reviewer based validation attribute rules assess the quality of features and rows maintained within a geodatabase. Rules are created using ArcGIS Pro and stored in the same geodatabase as the features they validate. When a feature or row is validated and an error is found, the system generates an error record within the geodatabase.
	CONSTRAINT ATTRIBUTE RULES Data Reviewer based constraint attribute rules help maintain feature and row quality during editing by rejecting edits that violate established rules. These rules are created using ArcGIS Pro and stored in the same geodatabase as the features they validate. If a rule is broken, the edit is blocked and an error message is returned.
	RUN DATA CHECKS This workflow enables the assessment of feature quality through Data Reviewer checks. Rules are created interactively in ArcGIS Pro to evaluate features in a map. If a feature or row violates a rule, a layer is added to the map to show the features that do not comply.

FEATURE INTEGRITY CHECKS

Check Geometry Finds features whose geometry is empty, nothing, or not simple, as well as features with empty envelopes.	<table><thead><tr><th>OBJECTID</th><th>SHAPE</th></tr></thead><tbody><tr><td>1</td><td>POLYLINE</td></tr><tr><td>2</td><td>POLYLINE</td></tr><tr><td>3</td><td>NULL</td></tr></tbody></table>	OBJECTID	SHAPE	1	POLYLINE	2	POLYLINE	3	NULL
OBJECTID	SHAPE								
1	POLYLINE								
2	POLYLINE								
3	NULL								
Cutbacks Finds segments where the angle between segments in a polygon or polyline is below a specified minimum value.	ANGLE <25°								
Duplicate Vertex Finds vertices from the same feature that are collocated or within a specified tolerance of one another.									
Evaluate Part Count Finds features with a part count that is within a specified value.	PARTS>1								
Evaluate Vertex Count Finds polyline or polygon features that have a vertex count within a specified tolerance.	NUMBER OF VERTICES>2 AND<5								
Nonlinear Segment Finds polyline or polygon features that contain nonlinear segments such as arcs and curves.									

SPATIAL RELATIONSHIP CHECKS

Composite Finds features or rows based on the result from multiple Data Reviewer checks.	FEATURE ON FEATURE 1 FEATURE ON FEATURE 2
Duplicate Feature Finds features that contain duplicate geometry and attribute values.	
Evaluate Intersection Count Finds vertices for polyline features in one feature class that intersect polyline or polygon features in a second feature class a specified number of times.	INTERSECTION>3
Feature on Feature Finds features that have a specific relationship either from two feature layers or within the same feature layer.	FEATURE ON FEATURE 1 FEATURE ON FEATURE 2
Valency Finds points or nodes of linear features that intersect with a specified number of linear features.	Valency not equal to 2

Z-VALUE CHECKS

Adjacent Vertex Elevation Change Finds vertices for polyline or polygon features with elevation (z-value) changes greater than the specified tolerance.	ΔZ>400'
Different Z at Intersection Finds two intersecting line features whose z-value difference is within the minimum/maximum specified range at the point where they intersect.	Lower bound: 5' Upper bound: 30' Z Δ =33' Z Δ =29' Z Δ =10' Z Δ =4'
Evaluate Z Values Finds features whose z values are within a specified range.	Z



esri®

THE
SCIENCE
OF
WHERE®

esri.com/datareviewer