

# ArcGIS® Data Reviewer Checks

## ATTRIBUTE CHECKS

<b>Domain</b> Finds attribute values that do not comply with coded value or range domains that are associated with an attribute field.	<table border="1"> <thead> <tr> <th>LANDUSE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <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> </tbody> </table>	LANDUSE	DESCRIPTION	000	UNCLASSIFIED	AGR	AGRICULTURE	SDP	PLAN	IND	INDUSTRIAL					
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<b>Query Attributes</b> <i>(Execute SQL)</i> Finds records based on a WHERE clause run against row attributes.																
<b>Regular Expression</b> Finds features and rows that contain text values that do not match a defined pattern.	<table border="1"> <thead> <tr> <th>FIELD</th> <th>REGULAR EXPRESSION</th> <th>YEAR</th> </tr> </thead> <tbody> <tr> <td>YEAR</td> <td>(19 20)\D\D</td> <td>1805</td> </tr> <tr> <td></td> <td></td> <td>1972</td> </tr> <tr> <td></td> <td></td> <td>2005</td> </tr> <tr> <td></td> <td></td> <td>200A</td> </tr> </tbody> </table>	FIELD	REGULAR EXPRESSION	YEAR	YEAR	(19 20)\D\D	1805			1972			2005			200A
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<b>Subtype</b> Finds features with improper or null subtype values.	<table border="1"> <thead> <tr> <th>SUBTYPES</th> </tr> </thead> <tbody> <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> </tbody> </table>	SUBTYPES	1 HIGHWAYS	2 MAJOR ROAD	3 LOCAL STREETS	4 ALLEY										
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<b>Table to Table Attribute</b> 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 border="1"> <thead> <tr> <th>FEATURE CLASS</th> <th>SCALE</th> </tr> </thead> <tbody> <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> </tbody> </table>	FEATURE CLASS	SCALE	OID	SCALE	1	10,000	2	20,000	3	10,000	4	30,000			
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<b>Unique Field Value</b> <i>(Unique ID)</i> 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 border="1"> <thead> <tr> <th>FEATURE CLASS 1</th> </tr> </thead> <tbody> <tr> <td>7 25</td> </tr> <tr> <td>8 18</td> </tr> <tr> <td>9 18</td> </tr> </tbody> </table>	FEATURE CLASS 1	7 25	8 18	9 18											
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## FEATURE INTEGRITY CHECKS

<b>Adjacent Vertex Elevation Change</b> Finds vertices for polyline or polygon features with elevation (z-value) changes greater than the specified tolerance.									
<b>Check Geometry</b> <i>(Invalid Geometry)</i> Finds features whose geometry is empty, nothing, or not simple, as well as features with empty envelopes.	<table border="1"> <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
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2	POLYLINE								
3	NULL								
<b>Cutbacks</b> Finds segments where the angle between segments in a polygon or polyline is below a specified minimum value.									
<b>Duplicate Vertex</b> Finds vertices from the same feature that are collocated or within a specified tolerance of one another.									
<b>Evaluate Extent</b> Finds features where the extent properties (x and y) are within specified parameters.									
<b>Evaluate Part Count</b> Finds features with a part count that is within a specified value.									
<b>Evaluate Vertex Count</b> Finds polyline or polygon features that have a vertex count within a specified tolerance.									
<b>Evaluate Z Values</b> Finds features whose z-values are within a specified range.									
<b>Nonlinear Segment</b> Finds polyline or polygon features that contain nonlinear segments such as arcs and curves.									
<b>Sampling</b> Generates a statistical sampling of features or records from one or more layers or tables.									

## EVENT CHECKS

<b>Event on Event</b> Finds linear referenced events that overlay other events based on a user-defined relationship.	
<b>Invalid Events</b> Finds linear referenced events that do not have an associated route (orphaned events) or contain invalid measure values. The check also identifies gaps or overlaps between events within the same route or across multiple routes.	

## GEODATABASE CHECKS

<b>Relationship</b> Finds rows in features classes and stand-alone tables that violate cardinality or relationship rules defined in a Relationship class.	
<b>Topology Rules</b> Finds the geometry of features that violate the topology rules that have been defined for a feature dataset in the geodatabase.	

## POLYGON CHECKS

<b>Evaluate Polygon Perimeter and Area</b> Finds polygon, part, ring, or segment features whose area or perimeter is within a specified range.	
<b>Invalid Hole Feature</b> Finds features that intersect polygon feature holes.	
<b>Multipart Polygon</b> Finds polygon features with more than one part and polygon features with holes.	
<b>Polygon Overlap/Gap Is Sliver</b> Find overlaps or gaps between polygons features that are below a specified thickness ratio.	
<b>Unclosed Polygon</b> <i>(Polygon Ring Closed)</i> Finds unclosed rings in polygon features.	
<b>Polygon is Sliver</b> Finds polygons below a specified thickness ratio (T) and optionally whose area is within a specified threshold.	
<b>Unnecessary Polygon Boundaries</b> Finds border geometries for polygons that share a common boundary and identical attribution.	

## LEGEND

	<b>REVIEWER BATCH JOBS</b> Reviewer batch jobs contain configured Data Reviewer checks that validate features stored in geodatabase feature classes, stand-alone tables, and shapefiles. Batch jobs are created using tools in ArcMap™ and are persisted as an .rbj file that can be shared using project templates and packages in ArcGIS Pro.
	<b>REVIEWER RULES IN A GEODATABASE</b> Reviewer geodatabase rules are configured Data Reviewer checks that evaluate the quality of features and rows stored in a geodatabase. Rules are created using tools in ArcGIS Pro and support both constraint attribute rule and validation attribute rule workflows. Rules are stored in a geodatabase that can be shared by exporting as a CSV or XML workspace document file.

## POLYLINE CHECKS

<b>Evaluate Polyline Length</b> Finds polyline segments, parts, or features that have a line length within a specified tolerance.	
<b>Find Dangles</b> Finds polyline features with nodes that are within a user-defined tolerance but not connected to other polyline or polygon features.	
<b>Monotonicity</b> Finds z-enabled or m-enabled polylines for vertices that are not strictly increasing or decreasing in value or are trending based on specified conditions.	
<b>Multipart Line</b> Finds polyline features with more than one part.	
<b>Find Disconnected Polylines</b> <i>(Orphans)</i> Finds polyline features that are not connected to other features in the same or other data sources.	
<b>Polyline or Path Closes on Self</b> Finds paths or lines in polyline features that close themselves.	
<b>Unnecessary Nodes</b> Finds features that share a node and have identical attributes in editable fields.	

## SPATIAL RELATIONSHIP CHECKS

<b>Composite</b> Finds features or rows based on the result from multiple Reviewer checks.	
<b>Different Z at Intersection</b> Finds two intersecting line features whose z-value difference is within the minimum/maximum specified tolerance values at the point where they intersect.	
<b>Duplicate Feature</b> Finds features of the same geometry type that are collocated and optionally share attributes.	
<b>Evaluate Intersection Count</b> 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.	
<b>Feature on Feature</b> <i>(Geometry on Geometry)</i> Finds features that have a specific relationship either from two feature layers or within the same feature layer.	
<b>Intersection on Geometry</b> Finds geometries with features in Feature Class 1 that intersect with the intersections of features in Feature Class 2 and 3.	
<b>Valency</b> Finds points or nodes of linear features that intersect with a specified number of linear features.	