

# Data Reviewer for ArcGIS® Pro Checks

## EVENT CHECKS

<p><b>Event on Event</b></p> <p>Finds linear referenced events that overlay other events based on a user-defined relationship.</p>	
<p><b>Invalid Events</b></p> <p>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.</p>	

## POLYGON CHECKS

<p><b>Evaluate Polygon Perimeter and Area</b></p> <p>Searches for polygon, part, ring, or segment features whose area or perimeter is within a specified range.</p>	
<p><b>Invalid Hole Feature</b></p> <p>Finds features that intersect polygon feature holes.</p>	
<p><b>Multipart Polygon</b></p> <p>Finds polygon features with more than one part and polygon features with holes.</p> <p><b>Note:</b> See <i>Evaluate Part Count</i> check for equivalent capability in ArcGIS Pro &amp; Enterprise workflows.</p>	
<p><b>Polygon Overlap/Gap Is Sliver</b></p> <p>Find overlaps or gaps between polygon features that are below a specified thinness ratio.</p> <p><b>Note:</b> See <i>Polygon Overlap is Sliver and Polygon Gap is Sliver</i> checks for equivalent capability in ArcGIS Pro &amp; Enterprise workflows.</p>	
<p><b>Unclosed Polygon (Polygon Ring Closed)</b></p> <p>Finds unclosed rings in polygon features.</p>	
<p><b>Polygon is Sliver</b></p> <p>Finds polygons below a specified thinness ratio (T) and optionally whose area is within a specified threshold.</p>	
<p><b>Unnecessary Polygon Boundaries</b></p> <p>Returns border geometries for polygons that share a common boundary and identical attribution.</p>	

## POLYLINE CHECKS

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

## ATTRIBUTE CHECKS

<p><b>Domain</b></p> <p>Finds attribute values that do not comply with coded value or range domains that are associated with an attribute field.</p>	<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 INDUSTRIAL</td> </tr> <tr> <td>IND</td> <td>INDUSTRIAL</td> </tr> </tbody> </table>	LANDUSE	DESCRIPTION	000	UNCLASSIFIED	AGR	AGRICULTURE	SDP	PLAN INDUSTRIAL	IND	INDUSTRIAL					
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<p><b>Query Attributes (Execute SQL)</b></p> <p>Finds records based on a WHERE clause run against row attributes.</p>																
<p><b>Regular Expression</b></p> <p>Finds features with attribute values that violate the regular expression.</p>	<table border="1"> <thead> <tr> <th>FIELD</th> <th>REGULAR EXPRESSION</th> <th>YEAR</th> </tr> </thead> <tbody> <tr> <td>1805</td> <td></td> <td>1805</td> </tr> <tr> <td>1972</td> <td></td> <td>1972</td> </tr> <tr> <td>2005</td> <td></td> <td>2005</td> </tr> <tr> <td>200A</td> <td></td> <td>200A</td> </tr> </tbody> </table>	FIELD	REGULAR EXPRESSION	YEAR	1805		1805	1972		1972	2005		2005	200A		200A
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<p><b>Subtype</b></p> <p>Finds features with improper or null subtype values.</p>	<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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<p><b>Table to Table Attribute</b></p> <p>Returns rows whose attributes match those of a feature class or table and/or comply with a user-defined WHERE clause comparing the attributes between feature classes and/or tables.</p>	<table border="1"> <thead> <tr> <th>FEATURE CLASS</th> <th>SCALE</th> </tr> </thead> <tbody> <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	1	10,000	2	20,000	3	10,000	4	30,000					
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<p><b>Unique Values (Unique ID)</b></p> <p>Checks the values of a set of fields across a set of tables and feature classes for uniqueness within a given workspace.</p>	<table border="1"> <thead> <tr> <th>FEATURE CLASS 1</th> <th>FEATURE CLASS 2</th> </tr> </thead> <tbody> <tr> <td>7 25</td> <td></td> </tr> <tr> <td>8 18</td> <td>1 36</td> </tr> <tr> <td>9 18</td> <td>2 21</td> </tr> <tr> <td></td> <td>3 18</td> </tr> </tbody> </table>	FEATURE CLASS 1	FEATURE CLASS 2	7 25		8 18	1 36	9 18	2 21		3 18					
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## FEATURE INTEGRITY CHECKS

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

## GEODATABASE CHECKS

<p><b>Relationships Check</b></p> <p>Searches for records that are orphans or have improper cardinality in a relationship class.</p>	
<p><b>Topology Rules</b></p> <p>Returns the geometry of features that violate the topology rules that have been defined for a feature dataset in the geodatabase.</p>	

## SPATIAL RELATIONSHIP CHECKS

<p><b>Adjacent Vertex Elevation</b></p> <p>Finds vertices for polyline or polygon features with elevation (z-value) changes greater than the specified tolerance.</p>	
<p><b>Composite</b></p> <p>Searches for features that satisfy combined Geometry on Geometry and/or Table to Table Attribute checks by feeding the results of one check into the next check.</p>	
<p><b>Different Z at Intersection</b></p> <p>Finds two intersecting line features whose z-value difference is within the minimum/maximum specified tolerance values at the point where they intersect.</p>	
<p><b>Duplicate Feature</b></p> <p>Finds features of the same geometry type that are collocated and optionally share attributes.</p>	
<p><b>Evaluate Intersection Count</b></p> <p>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.</p>	
<p><b>Feature on Feature (Geometry on Geometry)</b></p> <p>Finds features that have a specific relationship, either from two feature layers or within the same feature layer.</p>	
<p><b>Intersection on Geometry</b></p> <p>Returns geometries for features in Feature Class 1 that intersect with the intersections from features from Feature Class 2 and 3.</p>	
<p><b>Valency</b></p> <p>Searches for points or nodes of linear features that intersect with a specified number of linear features.</p>	

## LEGEND

<p><b>REVIEWER BATCH JOBS</b></p> <p>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.</p>
<p><b>REVIEWER RULES IN A GEODATABASE</b></p> <p>Reviewer geodatabase rules are configured Data Reviewer checks that validate geodatabase feature classes and stand-alone tables. Rules are created using tools in ArcGIS Pro and are stored in a geodatabase that can be shared by exporting to comma-separated values files (.csv) or XML workspace document files (.xml).</p>
<p><b>REVIEWER MAP RULES IN A MAP</b></p> <p>Reviewer map rules are configured Data Reviewer checks that validate feature layers referenced in a map. Rules are created using tools in ArcGIS Pro and are stored in a map that can be shared using project templates and packages, map files and packages, and layer files and packages in ArcGIS Pro.</p>