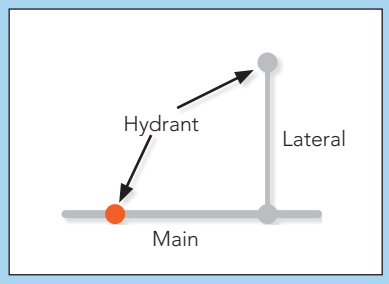


Database Validation Checks

Connectivity Rules

Returns geometries for features that violate the geometric network connectivity rules



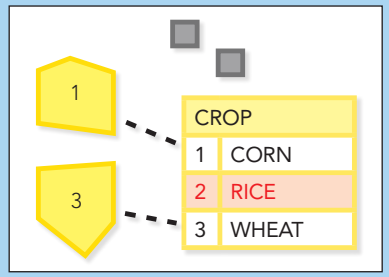
Domain

Validates coded value and range domains to ensure that all values meet domain constraints

LAND USE	DESCRIPTION
000	UNCLASSIFIED
AGR	AGRICULTURE PLAN
IND	INDUSTRIAL

Relationships

Searches for records that are orphans or have improper cardinality in a relationship class



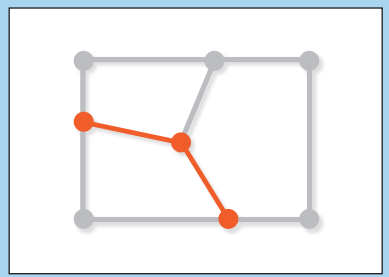
Subtype

Searches for feature classes with improper or null subtypes

SUBTYPES	Subtype=0
1 HIGHWAYS	
2 MAJOR ROAD	
3 LOCAL STREETS	
4 ALLEY	

Topology Rules

Returns the geometry of features that violate the topology rules that have been defined for a feature dataset in the geodatabase



Default Checks

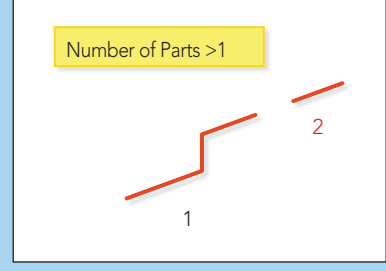
Invalid Geometry

Finds features whose geometry is empty, nothing, or not simple, as well as features with empty envelopes

OBJECTID	SHAPE	FCSUBTYPE
1	POLYLINE	AQ040-BRIDGE LINE
2	POLYLINE	AQ040-BRIDGE LINE
3	NULL	AQ040-BRIDGE LINE

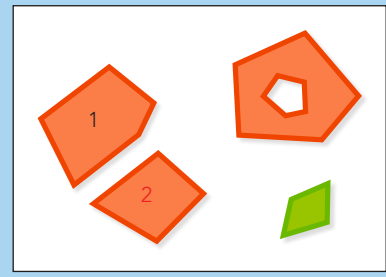
Multipart Line

Searches for polyline features with more than one part



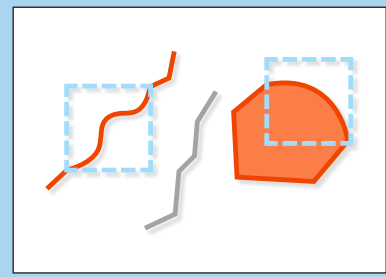
Multipart Polygon

Finds polygon features with more than one part and polygon features with holes



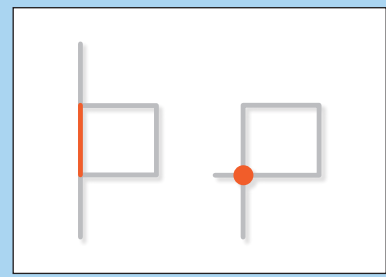
Nonlinear Segment

Searches for nonlinear segments, such as arcs and curves, in line and polygon features



Polyline or Path Closes on Self

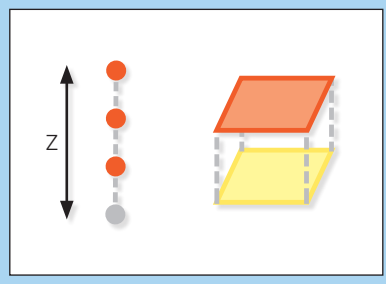
Finds paths and lines in polylines that touch or cross themselves



Duplicate Geometry Checks

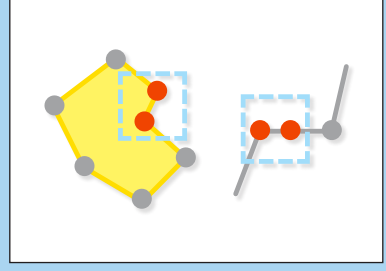
Duplicate Geometry

Finds features of the same geometry type that are collocated



Duplicate Vertex

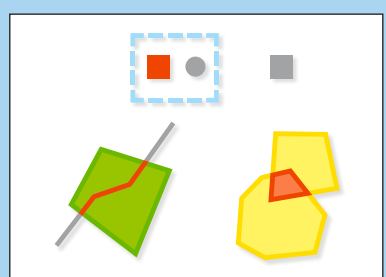
Searches for vertices in selected polyline or polygon feature classes that are within a specified tolerance of each other



Feature on Feature Checks

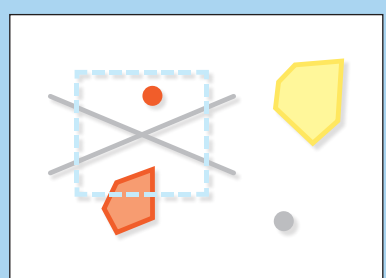
Geometry on Geometry

Searches for features from two different feature classes or within the same feature class that spatially intersect (e.g., intersect) or are within a tolerance of each other



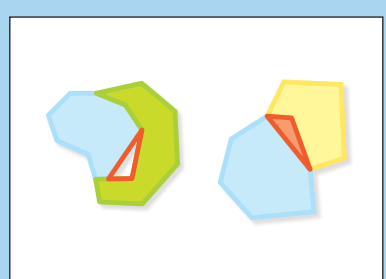
Intersection on Geometry

Returns geometries for features in Feature Class 1 that intersect with the intersections from features from Feature Class 2 and 3



Polygon Overlap/Gap Is Silver

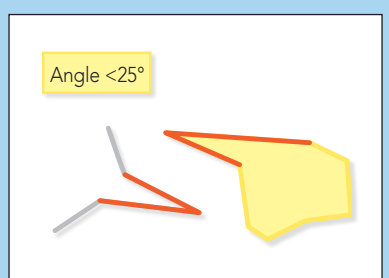
Returns overlap/gap geometries between polygon features from two feature classes that have a thinness ratio beneath a user-specified threshold; optionally requires that the overlap/gap polygons be beneath a maximum area threshold



Polyline Checks

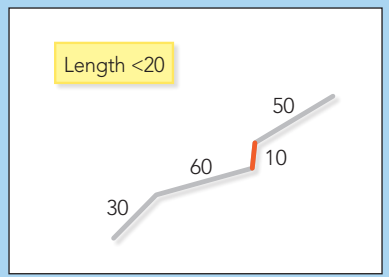
Cutbacks

Identifies segments where the angle between segments in a polygon or polyline is below a specified minimum value



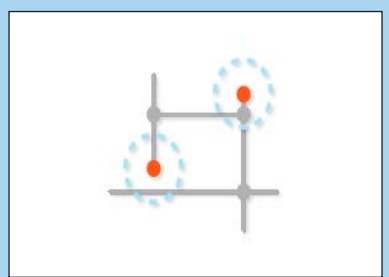
Evaluate Polyline Length

Searches for segment, part/path, and polyline features whose length is within a specified range



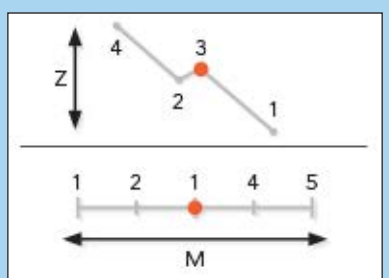
Find Dangles

Finds polyline features with nodes that are within a user-defined tolerance but not connected to other polyline or polygon features



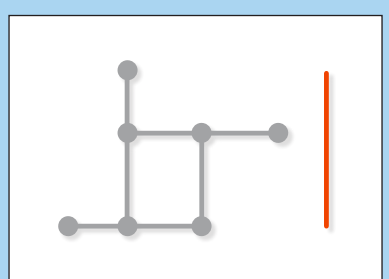
Monotonicity

Finds polylines with vertices that are not strictly increasing or decreasing in value or are trending based on specified conditions



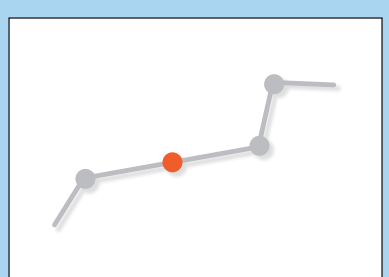
Orphan

Finds single polyline features that are not connected in the database topology



Unnecessary Nodes

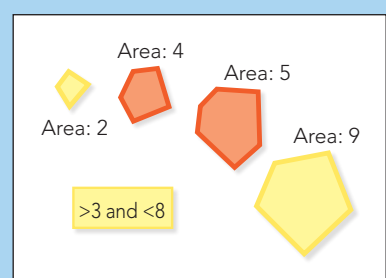
Finds features that share a node and have identical attributes in editable fields



Polygon Checks

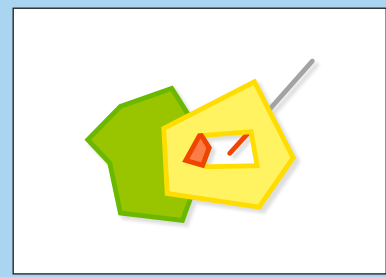
Evaluate Polygon Perimeter and Area

Searches for polygon, part, ring, or segment features whose area or perimeter is within a specified range



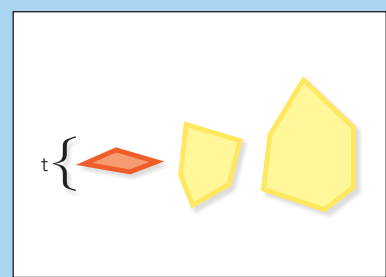
Invalid Hole Feature

Finds features that intersect polygon feature holes



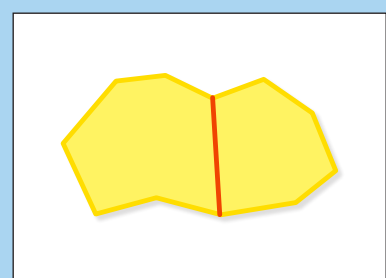
Polygon Sliver

Finds polygons below a specified thinness ratio (t) and optionally whose area is within a specified threshold



Unnecessary Polygon Boundaries

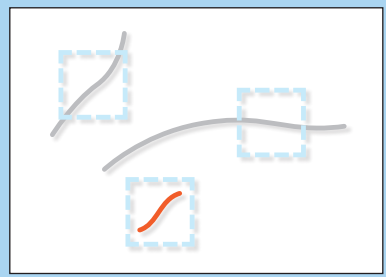
Returns border geometries for polygons that share a common boundary and identical attribution



Spatial Parameter Evaluation Checks

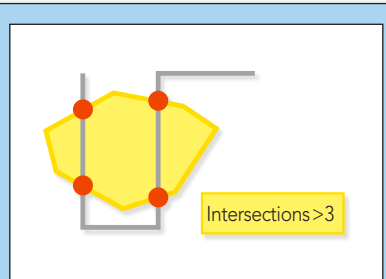
Evaluate Extent

Returns features where the extent properties (x and y) are within specified parameters



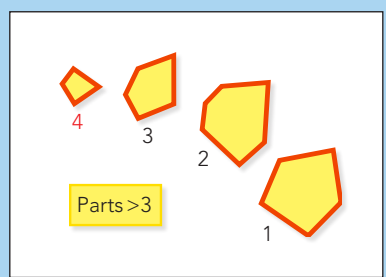
Evaluate Intersection Count

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



Evaluate Part Count

Finds features with a part count that is within a specified range



Evaluate Vertex Count

Searches for features with a vertex count that is within a specified range

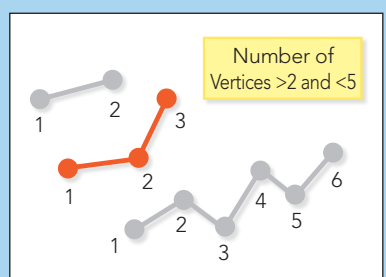
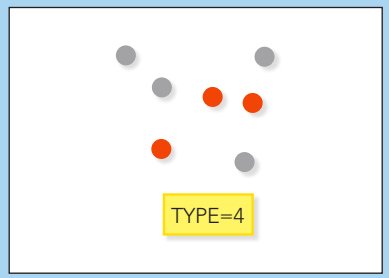


Table Checks

Execute SQL

Finds features based on a SQL query WHERE clause



Regular Expression

Finds features with attribute values that violate the regular expression

FIELD	REGULAR EXPRESSION	YEAR
YEAR	(19 20)/D/D	1905
		1972
		2005
		200A

Table to Table Attribute

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

FEATURE CLASS	OID	SCALE	SCALE
1	10,000	20,000	
2	20,000	30,000	
3	10,000		
4	30,000		

Unique ID

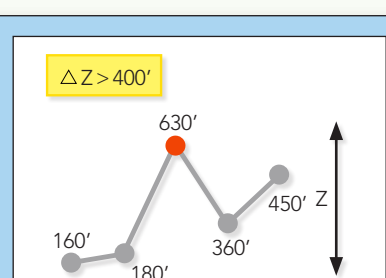
Checks the values of a set of fields across a set of tables and feature classes for uniqueness within a given workspace

FEATURE CLASS 1	FEATURE CLASS 2
7 25	1 36
8 18	2 21
9 18	3 18

Z-Value Checks

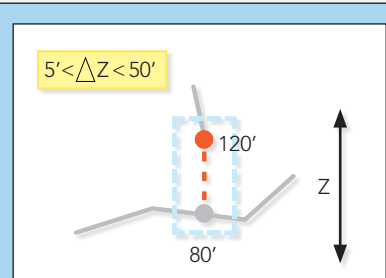
Adjacent Vertex Elevation Change

Finds vertices for polyline or polygon features with elevation (z-value) changes greater than the specified tolerance



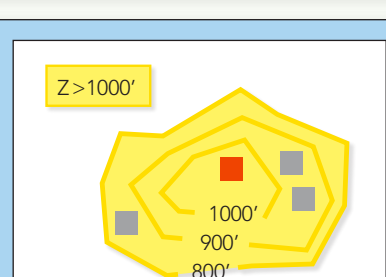
Different Z at Intersection

Finds two intersecting line features whose z-value difference is within the minimum/maximum specified tolerance values at the point where they intersect



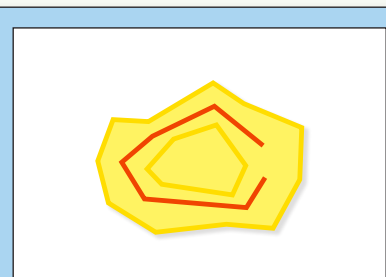
Evaluate Z-Values

Searches for features whose z-values are within a specified range



Polygon/Ring Closed

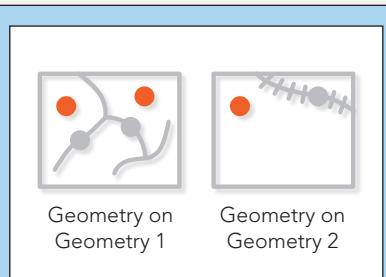
Searches for unclosed rings in polygons based on the x-value, y-value, and z-value



Advanced Checks

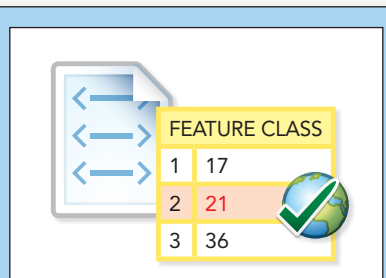
Composite

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



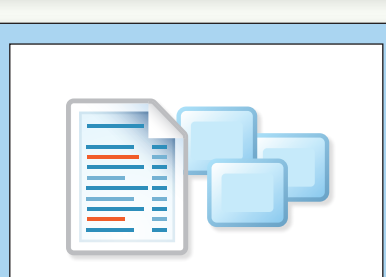
Custom

Returns records that meet the validation conditions of a custom check you developed to meet your specific requirements



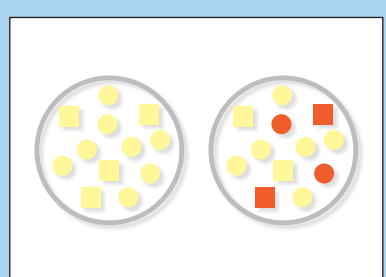
Metadata

Validates that the specified GIS item descriptions have been populated to comply with either a standards-based metadata schema or user-specified content requirements



Sampling

Generates a statistical sampling of features or records from one or more layers or tables



Valency

Searches for points or nodes of linear features that intersect with a specified number of linear features

