

enviro)tech

Esri tehniskais vebinārs  
**IESKATS DARBĀ AR  
ARCGIS PRO  
PAPLAŠINĀJUMU DATA  
REVIEWER**



25. FEBRUĀRĪ

14:00 - 15:30



# Kas ir ArcGIS Data Reviewer?

Vai esat kādreiz uzskatījuši, ka jums ir augstas kvalitātes dati, bet vēlāk izrādījās, ka tas tomēr tā nav?





# Kas ir ArcGIS Data Reviewer?

ArcGIS Data Reviewer ir paplašinājums, kas paredzēts ģeotelpisko datu kvalitātes pārbaudei un kontrolei.

Tas automātiski atlasa kļūdas datus, palīdz tās pārvaldīt un sagatavot pārskatus, lai nodrošinātu uzticamus un precīzus datus.





# Ar ko ArcGIS Data Reviewer atšķiras no ArcGIS Geodatabase Topology?

ArcGIS Geotabase Topology ir vairāk balstīta uz telpiskajām attiecībām starp elementiem un datu slāņiem, bet Data Reviewer atrod gan neatbilstības telpiskajās attiecībās, gan arī meklē neatbilstības atribūtu laukos.





# Kā strādā ArcGIS Data Reviewer?

- Vairāk nekā 30 automatizētas datu pārbaudes
- Iespēja konfigurēt atbilstoši vajadzībām
- Atbalsta vairākas darbapļūsmas

## ArcGIS® Data Reviewer Checks

**ATTRIBUTE CHECKS**

- Domain**  
Finds attribute values that do not comply with coded values or range domains that are associated with an attribute field.
- Query Attributes**  
Finds records based on a SQL expression run against row attributes.
- Regular Expression**  
Finds features and rows that contain text values that do not match a defined pattern.
- Relationship**  
Finds rows in feature classes and stand-alone tables that violate cardinality or relationship values defined in a Relationship class.
- Subtype**  
Finds features with improper or null subtype values.
- 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.
- 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.

**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.
- Find Polygons with Holes**  
Finds polygon features that have holes.
- Polygon Gap is Sliver**  
Finds gaps between polygon features that are below a thickness ratio.

**EVENT CHECKS**

- Event on Event**  
Finds linear referenced events that overlap other events based on a user-defined relationship.
- Find Orphan Events**  
Finds linear referenced events that have no association to a route feature.
- Find Event Gaps**  
Finds linear referenced events with gaps between events of the same category, in the same route, or across multiple routes.
- Find Event Overlaps**  
Finds linear referenced events that have overlaps with events of the same category, in the same route, or across multiple routes.
- Invalid Event M**  
Finds linear referenced values in the same group.

**POLYLINE CHECKS**

- Evaluate Polyline**  
Finds polyline segments within a specified length.
- Find Dangles**  
Finds polyline features with nodes that are within a user-defined tolerance but not connected to other polyline or polygon features.
- Find Disconnected Polylines**  
Finds polyline features that are not connected to other features in the same or other data sources.
- Find Self**  
Finds features that close themselves.

**FEATURE INTEGRITY CHECKS**

- Check Geometry**  
Finds features whose geometry is empty, nothing, or not simple, as well as features with empty envelopes.
- Outbacks**  
Finds segments where the angle between segments in a polygon or polyline is below a specified minimum value.
- Duplicate Vertex**  
Finds vertices from the same feature within a specified tolerance.
- Evaluate Part Count**  
Finds features with a part count.
- Evaluate Vertex Count**  
Finds polyline or polygon features within a specified tolerance.
- Nonlinear Segment**  
Finds polyline or polygon features that contain nonlinear segments such as arcs and curves.

**SPATIAL RELATIONSHIP CHECKS**

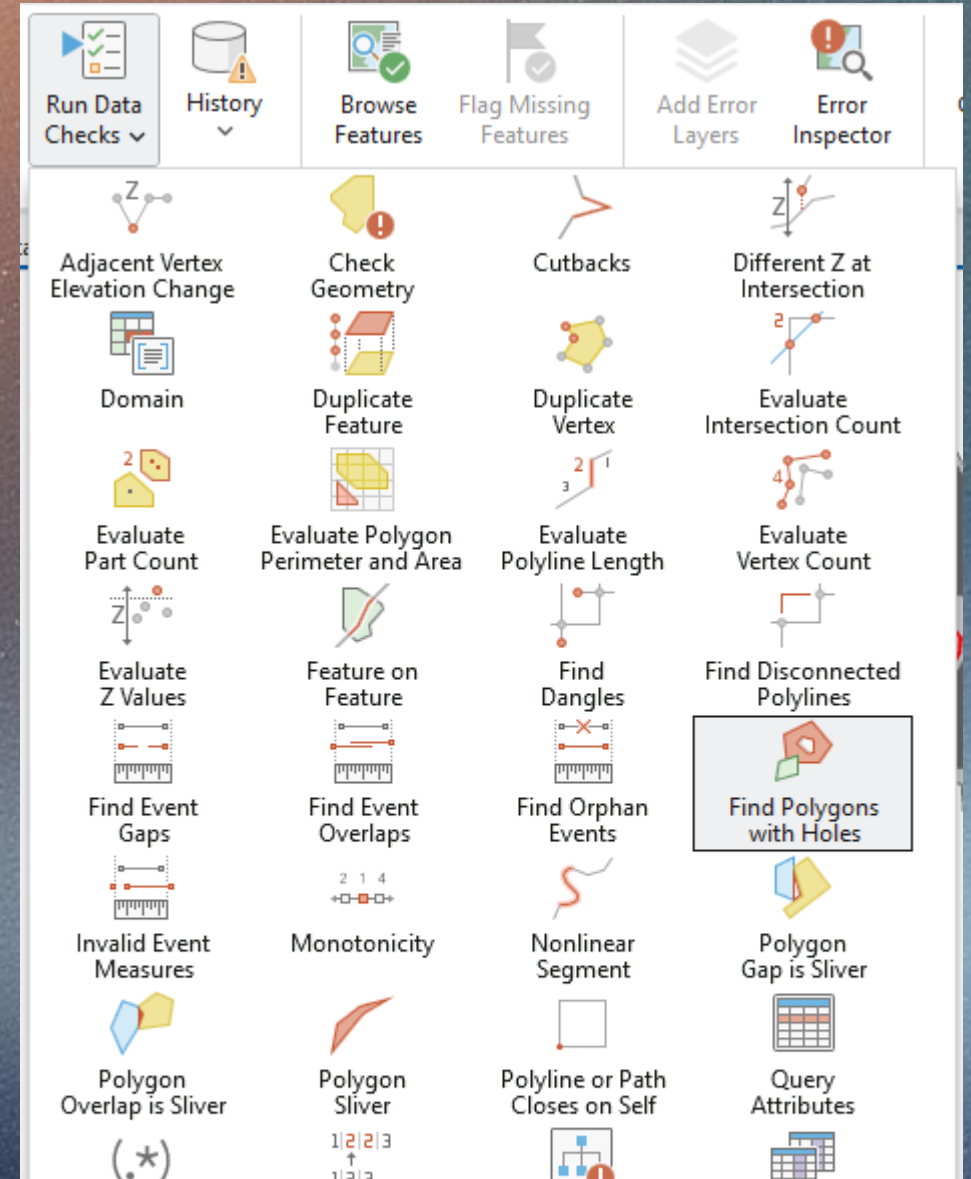
- Composite**  
Finds features or rows based on the result from multiple Data Reviewer checks.
- Duplicate Feature**  
Finds features that contain duplicate attribute values.
- Evaluate Intersect**  
Finds vertices for polygon intersect polyline or polygon class a specified number.
- Feature on Feature**  
Finds features that have two feature layers or within the same feature layer.



# Kā strādā ArcGIS Data Reviewer?

Dažādas darbplūsmas –  
**Run Data Checks**

Rīks “Run Data Checks” nosaka datu kvalitāti ar minimālu konfigurāciju. Šāda veida automatizētā pārskatīšana ir noderīga, ja nepieciešams veikt sākotnēju datu kvalitātes novērtējumu.





# Kā strādā ArcGIS Data Reviewer?

## Dažādas darbplūsmas - Attribute rule

“Attribute rule” darbplūsma ir uz datu atribūtiem vērsta, kā arī dod iespēju vienlaicīgi identificēt sliktas kvalitātes telpiskos datus. Šī automatizētā pārskatīšanas forma ir noderīga, lai vienlaicīgi novērtētu vairākus kvalitātes kontroles kritērijus

The screenshot shows the 'Add Rules' dialog box in ArcGIS Data Reviewer. The dialog is open to the 'Ready to Use Rules' tab, which displays a list of rules. The 'Constraint' tab is active, showing a grid of rule icons and names. The 'Validation' tab is also visible below the 'Constraint' tab.

Subtype	Min Pro Rel
<All>	2.9
<All>	2.7
<All>	3.2
<All>	2.9

**Constraint**

- Cutbacks
- Duplicate Vertex
- Evaluate Part Count
- Evaluate Polygon Perimeter and Area
- Evaluate Vertex Count
- Feature On Feature
- Unnecessary Polygon Boundaries

**Validation**

- Composite
- Check Geometry
- Cutbacks
- Domain
- Duplicate Feature
- Duplicate Vertex
- Evaluate Part Count
- Evaluate Polygon Perimeter and Area
- Evaluate Vertex Count
- Feature On Feature
- Find Polygons with Holes
- Nonlinear Segment
- Polygon Gap is Sliver
- Polygon Overlap is Sliver
- Polygon Sliver
- Query Attributes
- Regular Expression
- Relationship
- Table to Table Attribute
- Unclosed Polygon
- Unique Field Value



# Kā strādā ArcGIS Data Reviewer?

Dažādas darbplūsmas - Attribute rule

Pārskata un izvērtē kļūdas

- Error Layers
  - Point Errors
    - Fixed, Exception
    - Error
  - Line Errors
    - Fixed, Exception
    - Error
  - Polygon Errors
    - Fixed, Exception
    - Error
  - Object Errors

Error Inspector: Zonas

Source: Error Layers (Geodat)

Phase	Status	Shape	Rule Type	Exception	Source Layer	Feature ObjectID	Feature GlobalID
1	✓	Exception	Validation	!	GreenAreas	11814	{3D1495D2-238C-4622-95DF-92F12AED53E}
2	✗	Reviewed	Validation		GreenAreas	11778	{97E7E1AE-4381-40FF-BB1C-ED1F1B2305F}
3	✗	Reviewed	Validation		GreenAreas	11962	{DAC9B3E8-5396-47F4-80DC-5BA881439DI}
4	✗	Reviewed	Validation		GreenAreas	11776	{7FE6C772-4ABE-4449-8D42-C8C6A0B92E3}
5	✗	Reviewed	Validation		GreenAreas	11813	{DEFE5D5C-142B-40B0-8B98-F5F0B8113BC}
6	✗	Reviewed	Validation		GreenAreas	11888	{906A33CB-BED7-458B-9D57-4CDEFD3A97}
7	✗	Reviewed	Validation		GreenAreas	11890	{A8460D4A-8A0A-46F1-A788-5B15A07551C}
8	✗	Reviewed	Validation		GreenAreas	11894	{56127CAB-6027-469E-A166-307664F009F5}
9	✗	Reviewed	Validation		GreenAreas	11963	{3013A950-941C-4E5D-B2C1-6E33C35D0AC}
10	✗	Reviewed	Validation		GreenAreas	11965	{368D5619-C603-4A4F-9B30-FFC7C7D38B4}
11	✗	Reviewed	Validation		GreenAreas	11967	{DBEB2009-1044-4A6C-BC5A-875A0305B9E}
12	✗	Reviewed	Validation		GreenAreas	11969	{4E6584C9-6A0F-4CF5-8CAA-0A584957542}

Details

Property	Value
Id	10
Shape	Polygon
Rule Type	Validation
Exception	<input checked="" type="checkbox"/>
Source Layer	57
Feature ObjectID	11814
Feature GlobalID	{3D1495D2-238C-4622-95D}
Error Number	364
Error Message	Polygon has at least one h
Rule Name	Caurumi
Rule ID	3
Description	



# Ar ko sākt?

Pieejamo datu  
izpēte

Kādas kļūdas  
nepieciešams  
atrast?

Pārbaudes  
likumu  
definēšana

Rezultātu  
pārbaude



# Mājasdarbs\*

## KVALITĀTES KONTROLE

Līmenis: Vidējs

## KVALITĀTES KONTROLE

Līmenis: Vidējs

### Implement automated quality control

- Datu validācija un identificēšana ar automatizētu kvalitātes pārbaudi

### Managing Data Quality Using ArcGIS Data Reviewer

- Datu validācija
- Kļūdu labošana

*\*Mājasdarba izpildei nepieciešams Data Reviewer paplašinājums. Ja Jums tāds nav, sazinieties ar SIA Envirotech, nodrošināsim Jums izmēģinājuma versijas pieeju.*

# Nākamie zvani un pasākumi

## MĀJASDARBA ATSKATA ZVANS

4. martā 9:15 – 10:00

- atskats uz mājasdarbu
- pārrunājam neskaidros jautājumus
- atbildam uz tehniskajā vebinārā neatbildētajiem jautājumiem

## ESRI TEHNISKAIS VEBINĀRS

25. martā 14:00 – 15:30

Mākslīgais intelekts ArcGIS  
platformā

# Noderīgas saites

[ArcGIS Data reviewer dokumentācija](#)

[ArcGIS bloga raksti](#) par Data Reviewer piemēriem

[Pamācības darbam](#) ar Data Reviewer

[Esri Community](#) par darbu ar Data Reviewer

**Paldies Jums par dalību!**

