

Advanced Editing in ArcGIS Desktop

Relational Editing using Attribute Assistant

Sacramento User Group Meeting

By: Ronnie Richards

May 14 2013



Overview

- ESRI – Local Government Solution
 - Attribute Assistant Desktop Add-In
- Components
 - Desktop Add-In
 - Toolbar
 - Geodatabase Tables
- Capabilities
 - Dynamic Value
 - Generate ID
- Brief Demo



Where to get it...

- Local Government Resources

<http://resources.arcgis.com/en/communities/local-government/>

- Address Data Management (ArcGIS 10.1)
- Water Utility Network Editing (ArcGIS 10.1)



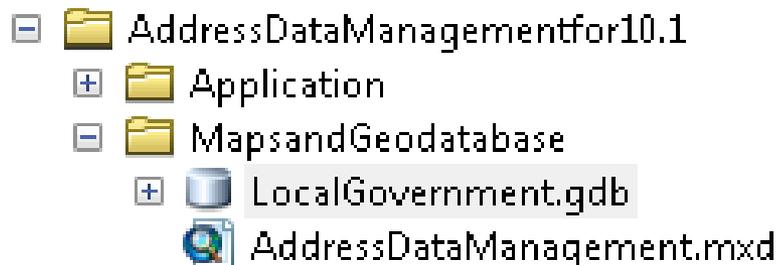
Inside Local Govt Solutions



Attribute Assistant

Created by: Esri., Inc.
Date: 11/1/2012
Version: 10.1.1.1
Digital Signature: Authenticated

Allows attributes to be automatically populated as features are created or modified based on a series of user defined rules.



DamageResidentialBuilding_ATTACH	File Geodatabase Table
DamageResidentialBuilding_ATTACHREL	File Geodatabase Relationship Class
DynamicValue	File Geodatabase Table
EmployeeInfo	File Geodatabase Table
FacilitySitePoint_ATTACH	File Geodatabase Table
FacilitySitePoint_ATTACHREL	File Geodatabase Relationship Class
FiveMeterHillshade	File Geodatabase Raster Dataset
FiveMeterSurface	File Geodatabase Raster Dataset
FloodImpactPlan	File Geodatabase Table
GenerateId	File Geodatabase Table
GovServiceInfo	File Geodatabase Table

What is Attribute Assistant

- User Defined Rules to Automatically Populate Attributes
 - As Features Created or Edited including Geometry changes
 - As Manually override
- Data Validation and Automation
 - Improved Editing Workflow
 - Apply Attributes quickly and efficiently
- Similar Tools
 - Connectivity - Topology & Geometric Networks
 - Relational Attributes
 - Attribute Transfer Tool
 - Post Processing (Model Builder/Python)
 - Workflow Manager Extension

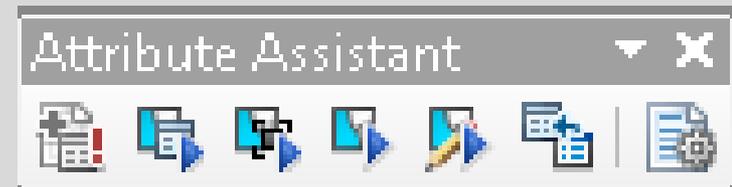
Attribute Assistant components

- Desktop Add-In
- AA Toolbar
- Dynamic Value Table
- Generate ID Table



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DynamicValue

OBJECTID	Table Name	Field Name	Value Method	Value Info	Create	Change	On Ma
82	ssManhole	LOCDESC	INTERSECTI	FiveMeterSurface Elevation:	True	False	
101	Levee	FLOODIMPI	INTERSECTI	FloodImpactArea FLOODIMPID	True	False	
87	wSystemValv	ROTATION	JUNCTION_	g 0 DIAMETER	True	True	

GenerateId

OBJECTID *	Sequence Name	Sequence Counter	Comments	Interval Value
1	WHYDRANT	1	<Null>	1
2	MANHOLE	1	<Null>	1
3	WSYSTEMVALVE	1	<Null>	1
4	WMETER	1	<Null>	1

AA Toolbar

- Tools

- Enable / Disable AA
- Change Event on Selected Features
- Geometry Change Event on Selected Features
- Manual Change Event on Selected Features
- Create Event on Selected Features
- Load Last Value
- Display Configuration



Dynamic Value

- 50+ Dynamic Value Functions
 - Generate ID
 - X/Y & Lat/Long Coordinates
 - Current User
 - Expressions
 - Intersecting Features
 - Near Features
 - ... more

DynamicValue

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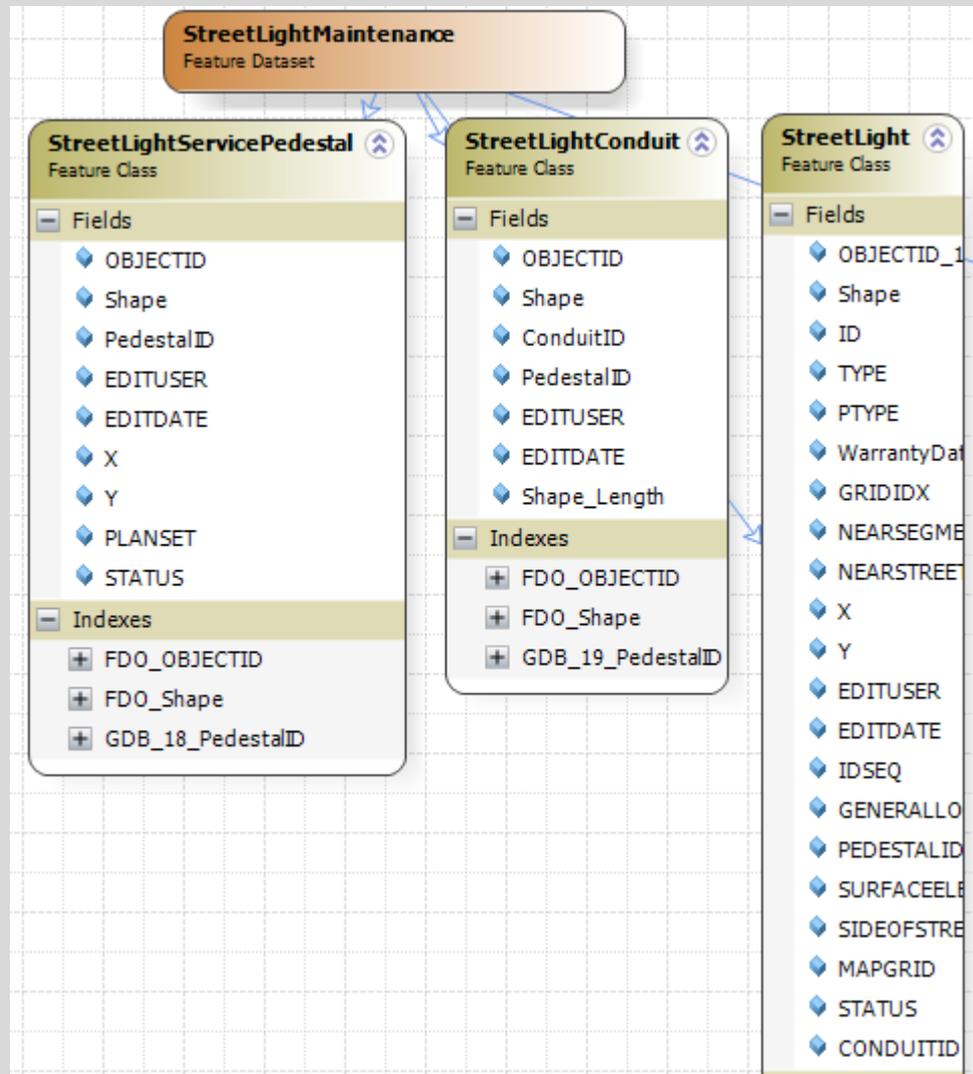
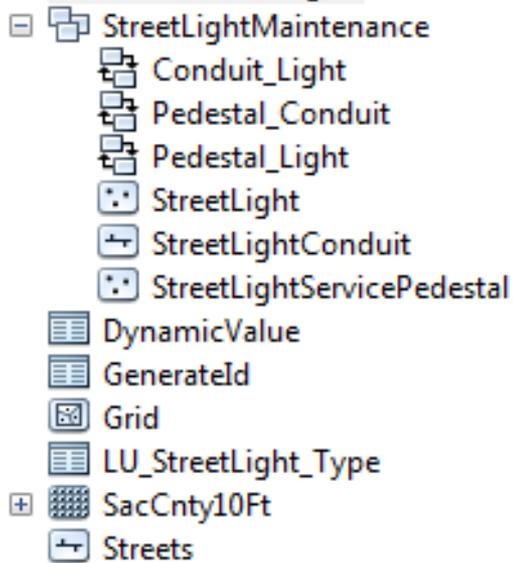
Generate ID

- Generate ID Table
 - Incremental ID
 - Grid Based ID

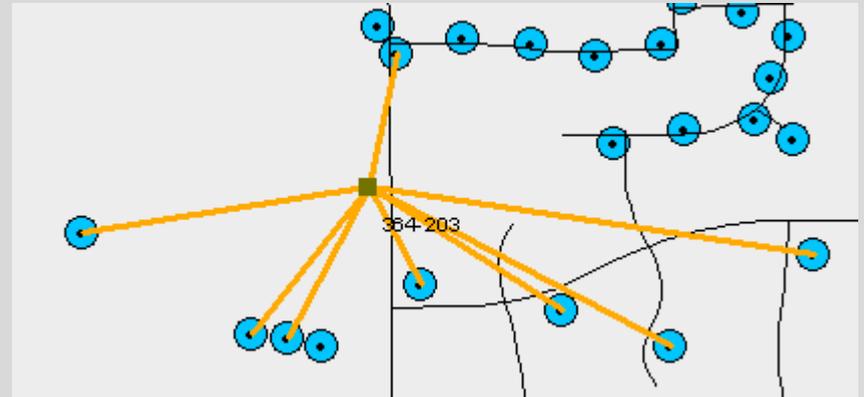
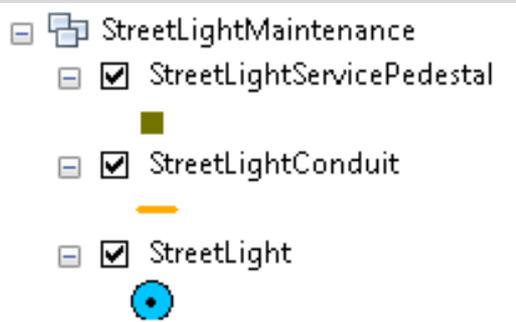
GenerateId

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Data Model



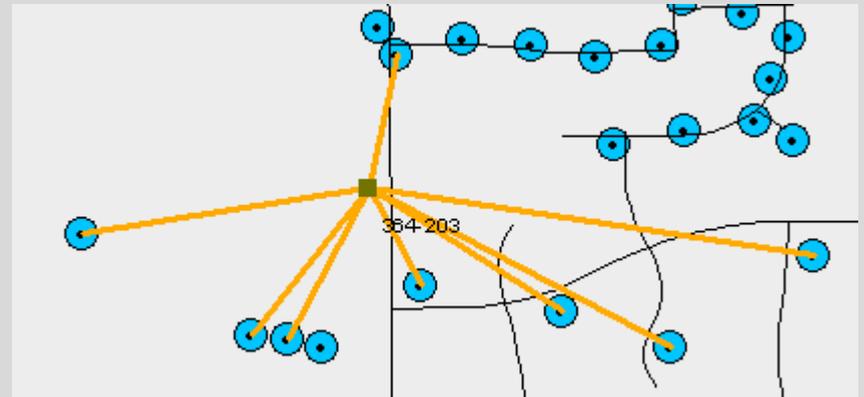
Demonstration



DynamicValue

OBJECTID *	Table Name	Field Name	Value Method	Value Info
18	*	STATUS	LAST_VALUE	<Null>
116	*	X	X_COORDINATE	<Null>
117	*	Y	Y_COORDINATE	<Null>
118	*	EDITUSER	CURRENT_USER	<Null>
119	*	EDITDATE	TIMESTAMP	<Null>
82	StreetLight	SURFACELEV	INTERSECTING_RASTER	SacCnty10Ft Pixel Value:
86	StreetLight	TYPE	VALIDATE_ATTRIBUTE_LOOKUP	LU_StreetLight_Type TYPE
112	StreetLight	ID	GENERATE_ID_BY_INTERSECT	GRID GRID_ID GRID 3 [ID]:x[SEQ]
113	StreetLight	MAPGRID	INTERSECTING_FEATURE	Grid GRID_ID
114	StreetLight	NEARSEGMENTID	NEAREST_FEATURE	Streets UNIQUE_ID 100
115	StreetLight	NEARSTREETNAME	NEAREST_FEATURE	Streets FULLSTREET 100
120	StreetLight	IDSEQ	EXPRESSION	MID([ID],INSTR([ID],"x")+1,4)
124	StreetLight	GENERALLOC	GET_ADDRESS_FROM_CENTERLINE	Streets FULLSTREET_LF_EXHAUST_RF_EXHAUST_LT_EXHAUST_RT_EXHAUST 150
125	StreetLight	PEDESTALID	COPY_LINKED_RECORD	StreetLightServicePedestal PedestalID PedestalID PedestalID
126	StreetLight	WARRANTYDATE	LAST_VALUE	<Null>
128	StreetLight	SIDEOFSTREET	SIDE	Streets UNIQUE_ID NEARSEGMENTID
50	StreetLightConduit	PEDESTALID	CASCADE_ATTRIBUTE	StreetLightServicePedestal PedestalID False
121	StreetLightConduit	CONDUITID	GENERATE_ID	StreetLightConduitID 0 SLC-[seq]
123	StreetLightConduit	PEDESTALID	NEAREST_FEATURE	StreetLightServicePedestal PedestalID 5
122	StreetLightServicePedestal	PedestalID	GENERATE_ID	StreetLightPedestalID 0 PED-[seq]
127	StreetLightServicePedestal	PLANSET	PROMPT	<Null>

Demonstration



DynamicValue

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127	StreetLightServicePedestal	PLANSET	PROMPT	<Null>

Future...

- Contribute to ArcGIS Ideas
 - Attribute Assistant in core ArcGIS
 - Support Python Syntax in Attribute Assistant
 - Parcel Fabric Feature Dataset and the Attribute Assistant
- What I'd like to see
 - Python Syntax
 - Extend to ArcGIS Server
 - Support for Hierarchical Domains

Questions

Thanks for your time!!

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