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Applied Data Consultants, Inc: A Brief Introduction

SE Minnesota GIS Users Group

Thursday, April 17, 2008

Ross Kleiner

Program Manager



Today's Goals

- **Introduce ADC**
 - *Brief History*
 - *ADC Today*
- **Present a few current ADC GIS projects**
- **Introduce Jeremy Holt**
- **Parcel Mapping Tips and Tricks**
- **Questions/Discussion**

Who is ADC?

Mapping-Online | GSA | Client Login



Applied Data Consultants...

Providing GIS Solutions for Your Success

[HOME](#) [ABOUT ADC](#) [ADC'S TEAM](#) [SOLUTIONS](#) [PRODUCTS](#) [CLIENTS](#) [CONTACT US](#)

Welcome to Applied Data Consultants

Tuesday November 13, 2007

Welcome to Applied Data Consultants, Inc. (ADC). We are a full-service geographic information services (GIS) firm with the expertise and experience to help you achieve your goals. Our commitment to our clients has made ADC one of the largest GIS firms in the Midwest, serving both public and private clients throughout the nation.

Thank you for visiting our website and taking the opportunity to learn more about the services we provide. While we hope it answers some of your questions, there is no substitute for a personal consultation. Please contact us anytime with questions regarding how we can help you.



News

- ADC Announces New Hires
- State of Iowa Selects ADC to Provide Geospatial Services
- ADC Donates to Land Preservation Project
- Douglas County, Nebraska Serves its Data on the Web
- Plum Creek Hires ADC to Create Database

Eau Claire Office: 2985 58th Street Eau Claire, WI 54703

Omaha Office: 7101 Mercy Road, Suite 150 Omaha, NE 68106

Toll Free: 1.888.WeDoGIS

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Who is ADC?

- Applied Data Consultants – Incorporated in **1996**
- Full-service **GIS** firm
- 2 original founders – **Nick Stadnyk** and **Jim Ward**
- Offices in **Eau Claire, WI** and **Omaha, NE**
- Commitment to **Quality**
- Importance Placed on **Partnerships**

Who is ADC? (Cont...)

- Employs **47** professionals
 - **37** in Eau Claire
 - **10** in Omaha
- ADC - EC started in a bedroom/office on West Side
- Occupied suites on the 4th floor of Banbury Place
- Built a New Building in Fall of 2003
- Addition Completed in May 2008
 - 6,000 sq. foot addition w/ basement
 - State-of-the-art server room
- **We Truly Enjoy What We Do!**

Employee Experience

ADC employees have experience in a wide range of backgrounds, including:

- Geography
- GIS
- Computer Science (JAVA, .net, database)
- WEB Development
- Natural Resource Management
- Engineering
- Geology
- Business / Marketing
- Graphic Design
- Teaching

Diverse Client Base

- **Government Offices**

- Local and County
- State
- Federal

- **Private Organizations**

- Local and National Retail Stores
- Restaurant Chains
- Insurance Companies
- Utilities and Materials
- Agriculture
- Research Organizations
- Distribution Companies



Select ADC Clients

Chippewa County, WI
Pepin County, WI
Outagamie County, WI
Monroe County, WI
Eau Claire County, WI
Iowa County, WI
Washington County, NE
Taylor County, WI
US Army Corps (9 districts)
City of Muskego, WI
Village of Hallie, WI
St. Croix Chippewa Tribe
DDA
ISS, Inc.
Forum Analytics
CAS, Inc.
Heartland Business Systems
Red Cliff Band
Town of Buffalo, WI

Dunn County, WI
Polk County, WI
Rusk County, WI
Price County, WI
Jackson County, WI
Sarpy County, NE
Adams County, WI
Washburn County, WI
City of Eau Claire, WI
City of Sparta, WI
Jennie-O
Ho-Chunk Nation
Signature Press
Lake Associations
WI Dept. Military Affairs
ESS, Inc.
Leisch Environmental
Sacred Heart, Eau Claire
Trinergy Marketing

Ashland County, WI
Barron County, WI
Marquette County, WI
Lincoln County, WI
Douglas County, WI
Douglas County, NE
Forest County, WI
Wisconsin – DNR
City of Medford, WI
City of Rochester, MN
InfoUSA
Farmers Crop Insurance
American Materials
V2K
CSM, Inc.
Fort McCoy, WI
NRCS – South Dakota
St. Croix Gas
U.S. Stratcom

General Areas of Expertise

Data
Development

Application
Development

GIS Web
Development

Needs
Assessment &
Integration

Training

Web Development, ArcIMS and WebGuide Implementation

Pepin County Geographic Information Web Server - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://www.pepinco-onlinemaps.com:82/html/default.htm> Back Go

Pepin County Geographic Information Web Server Main Home Land Records

Main Layers & Legend Parcel Search Help

Tools: Pointer, Overview, Full Extent, Active Layer, Previous Extent, Zoom In, Zoom Out, Pan, Navigation, Bookmarks, Select, Buffer, Clear Selection, Identify, Identify All

Buffer Results

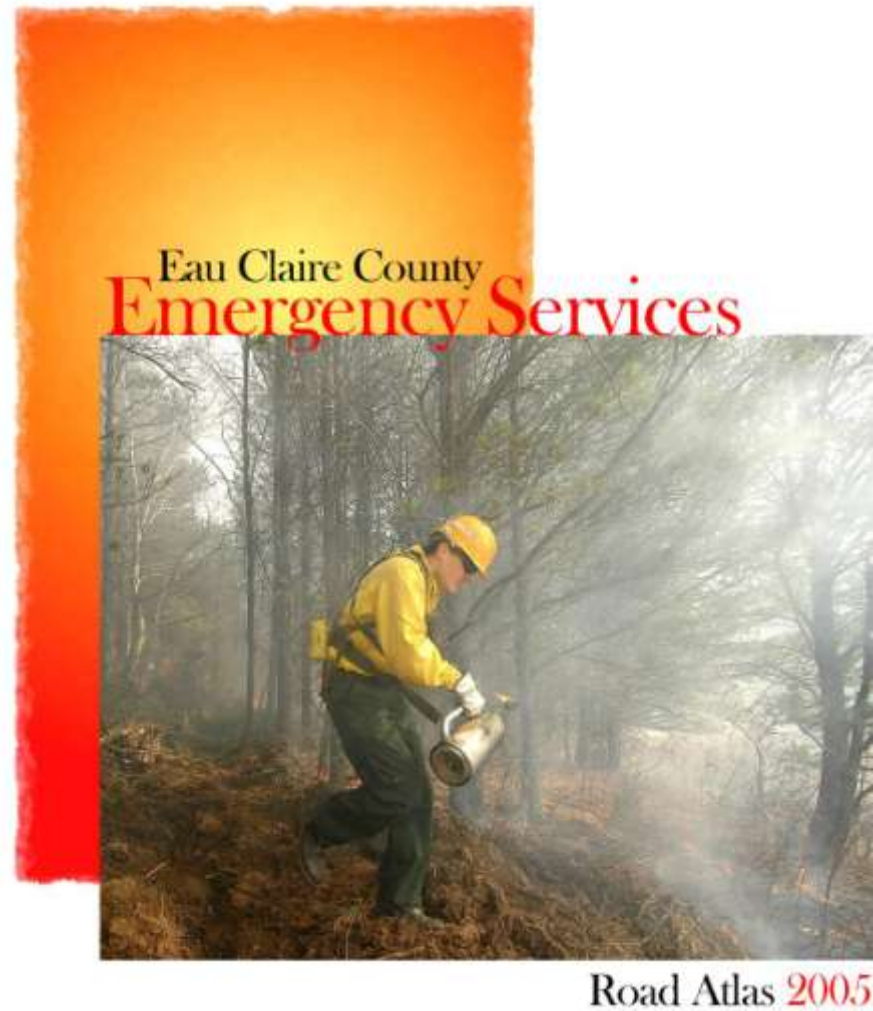
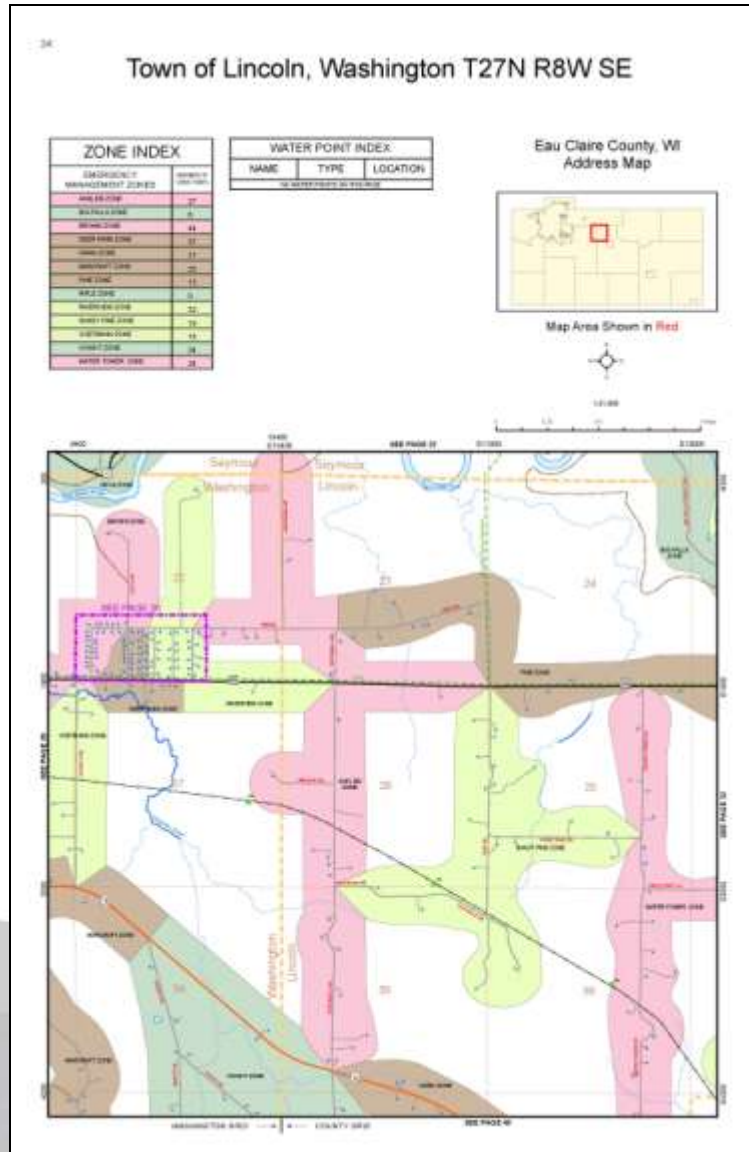
COMPUTER_N	PARCELNO	PARNO
12.194.0	012001940000	460122231.601 TMP000001.46
12.260.0	012002600000	460122231.506 TMP000001.48
12.259.0	012002590000	460122231.506 TMP000001.48
12.262.0	012002620000	460122231.506 TMP000001.48
12.268.0	012002680000	460122231.506 TMP000001.48
12.235.0	012002350000	460122231.506 TMP000001.47
12.269.0	012002690000	460122231.506 TMP000001.48
12.263.0	012002630000	460122231.506 TMP000001.48
12.261.0	012002610000	460122231.506 TMP000001.48
Val Stockholm		
12.210.1	012002100001	460122231.611 TMP000001.47
12.278.0	012002780000	460122231.506 TMP000001.49
12.277.0	012002770000	460122231.506 TMP000001.49
12.277.1	012002770001	460122231.506 TMP000001.49
12.276.0	012002760000	460122231.506 TMP000001.49
12.272.0	012002720000	460122231.506 TMP000001.49
12.299.0	012002990000	460122231.506 TMP000001.49
12.261.0	012002610000	460122231.506 TMP000001.48

Active Trail Zoom In Active Layer Sections 14849 visits since October 17, 2001 Driven by WebGUIDE2 Trusted sites

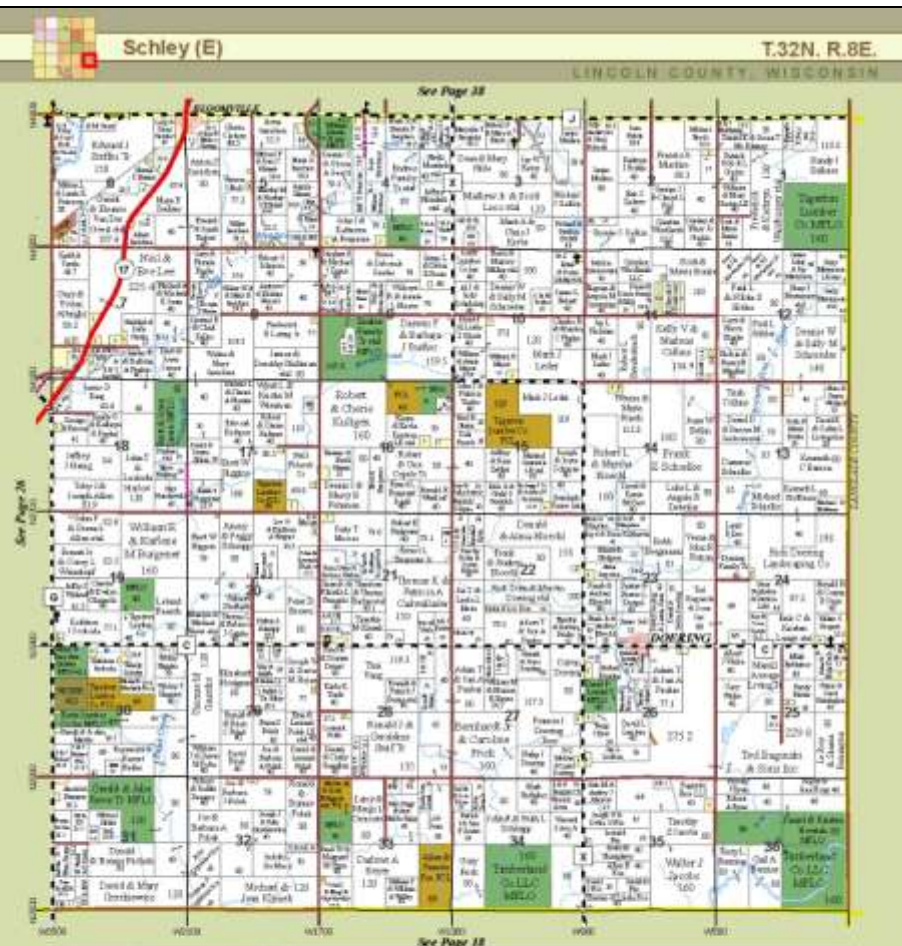
Web Development, ArcIMS and Arc SDE Implementation



Map Production - Emergency Mapping



Map Production – Plat Book Maps

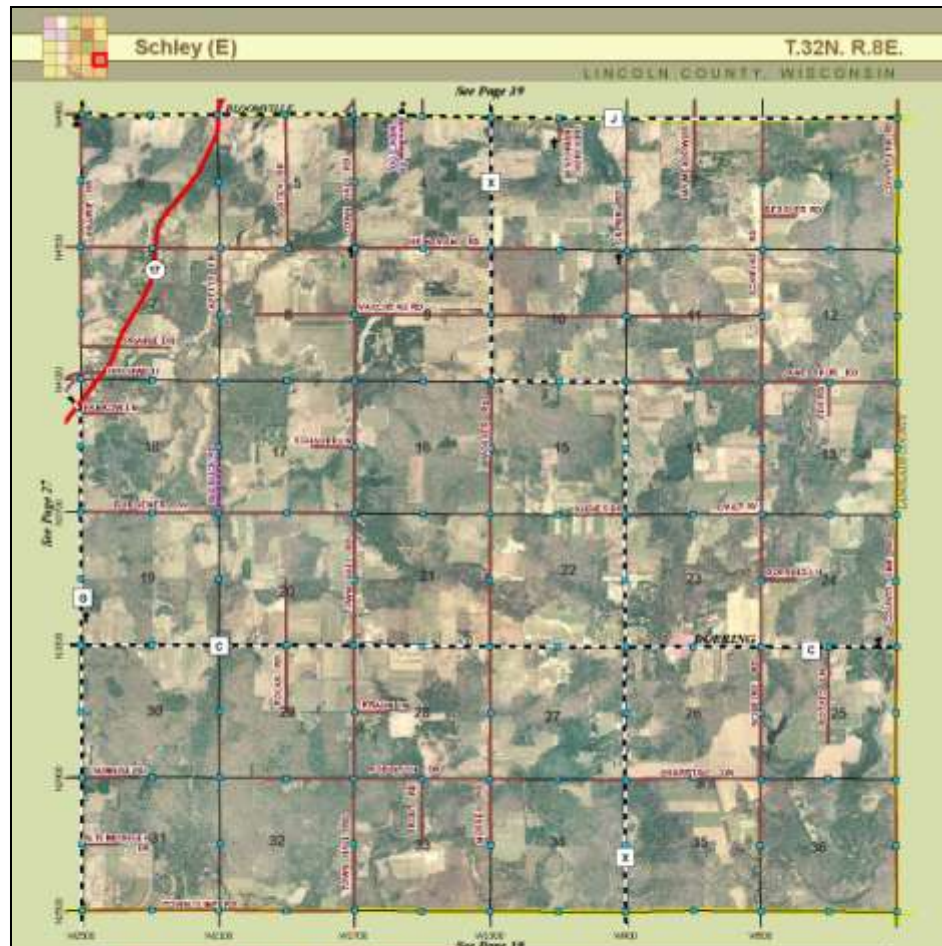


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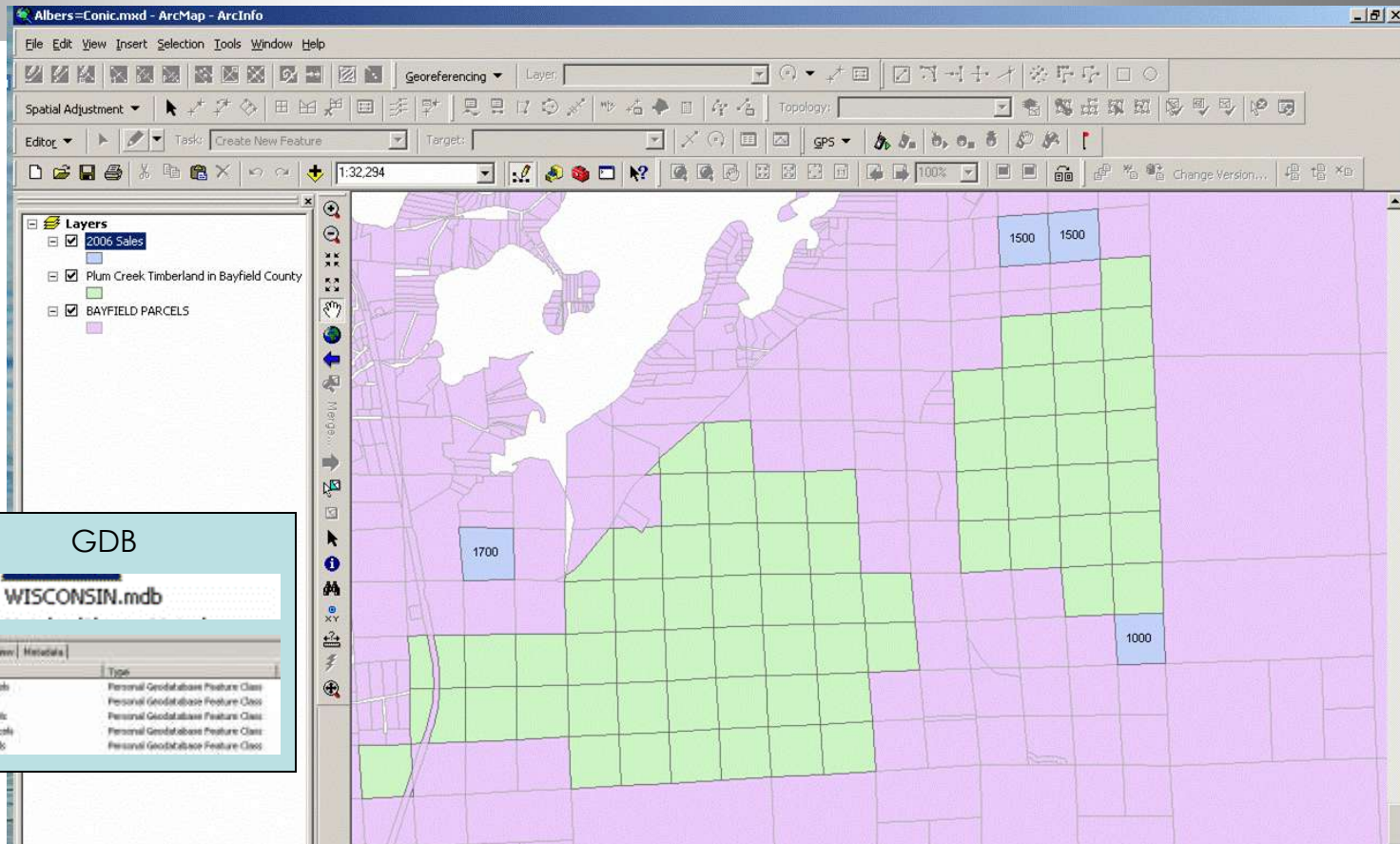
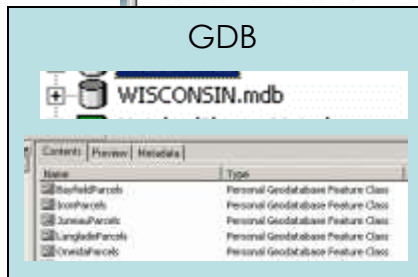
Nelson's County Market
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Wares & WPS Payments Accepted

642 North 4th St. North Bay Plaza
Tomahawk, Wisconsin 54487
http://www.countymarket.com/nelsons
(715) 453-2174

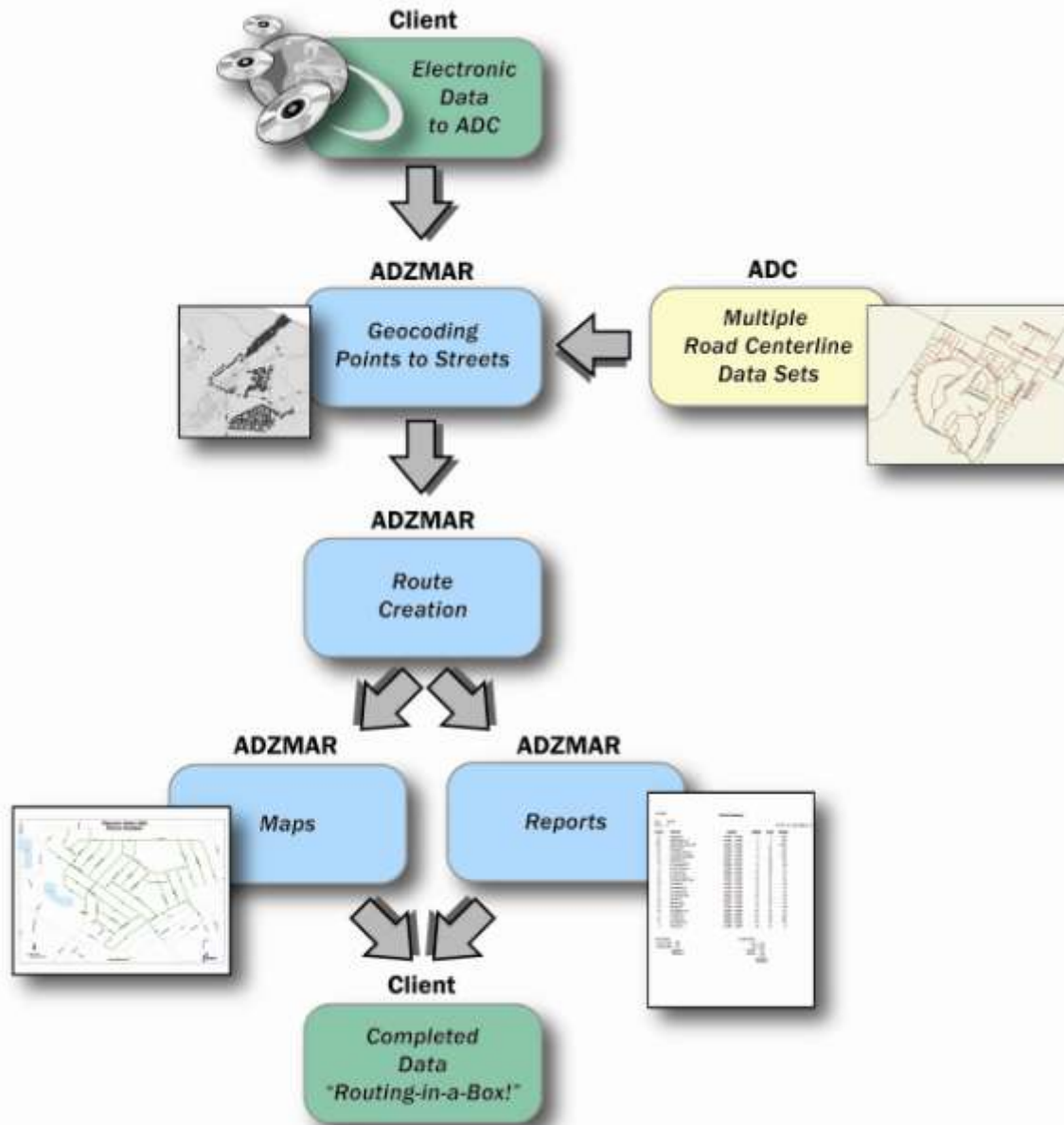
Client Schema

[illegible]

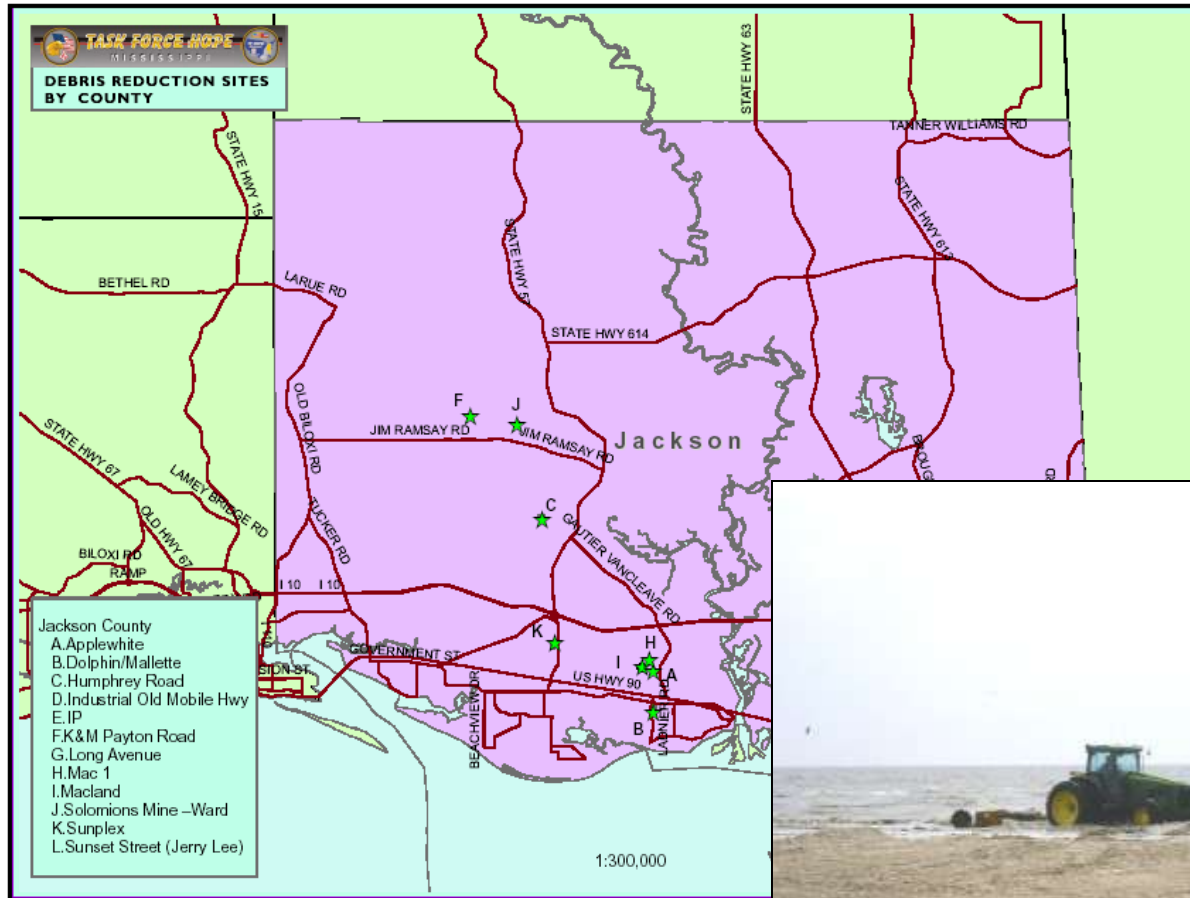
SerialNumber	YearCaptured	Section	Township	Range	TotalAcres	TotalRealEstate	TransferFee	DateConveyed	LandAcrt/Value	ImprovementAcrt	TotalAcrt/Value
2006011410029	2006	34	21N	3E	14.8	\$512,000.00	\$936.00	01112006	\$346,000.00	\$0.00	\$346,000.00
2006062599595	2006	34	44N	9W	120	\$211,530.00	\$634.80	07262006	\$216,000.00	\$0.00	\$216,000.00
2006031113015	2006	33	36N	12W	155	\$279,500.00	\$638.50	05242006	\$301,600.00	\$0.00	\$301,600.00
2006063014011	2006	31	26N	17E	100	\$250,000.00	\$750.00	05182006	\$158,000.00	\$0.00	\$158,000.00
2006041272532	2006	36	22N	10E	62	\$330,000.00	\$890.00	02282006	\$165,400.00	\$0.00	\$165,400.00
2006032410030	2006	23	18N	2E	768	\$300,000.00	\$800.00	03172006	\$169,300.00	\$0.00	\$169,300.00
20060525995423	2006	19	46N	5W	100	\$127,500.00	\$382.50	06212006	\$160,000.00	\$0.00	\$160,000.00
2006032196749	2006	20	41N	5E	139	\$167,000.00	\$581.00	09302006	\$155,000.00	\$0.00	\$155,000.00
20060521989412	2006	6	36N	10E	115	\$136,000.00	\$405.00	06212006	\$142,000.00	\$0.00	\$142,000.00
2006031713024	2006	00			280	\$280,000.00	\$840.00	02032006	\$146,800.00	\$0.00	\$146,800.00
2006060511032	2006	32	44N	5E	31	\$115,000.00	\$345.00	04212006	\$146,300.00	\$0.00	\$146,300.00
20060303072010	2006	14	43N	7E	31	\$250,000.00	\$750.00	01182006	\$140,000.00	\$0.00	\$140,000.00
2006101916016	2006	10	45N	5W	160	\$320,000.00	\$860.00	09012006	\$133,000.00	\$0.00	\$133,000.00
2006101112007	2006	23	32N	7E	80	\$138,000.00	\$414.00	09082006	\$132,000.00	\$0.00	\$132,000.00

PARCELNO	LASTNAME	STREET	CITYSTATE	ZIPCODE	SECTION
04-002-2-48-04-02-2 05-001-13001	MANS	PO BOX 475	WASHERURN WI	54901-0475	00
04-002-2-48-04-02-2 05-001-14000	JARRISON (J) ET AL	2478 ST HWY	WASHERURN WI	54901	00
04-002-2-48-04-05-001-15000	JARRISON (J) ET AL	4783 LAKE ST	WASHERURN WI	54901	00
04-002-2-48-04-03-2 05-001-16000	STATE OF WISCONSIN	1701 N 4TH ST	SUPERIOR WI	54900-1060	00
04-002-2-48-04-03-2 05-001-01000	LAKE SUPERIOR RETIRE	4755 NORTH ST	CORNO MAN	52304	00
04-002-2-48-04-03-2 05-001-03000	SWENSON	3730 CTRY RD	SUN PRAIRIE WI	52590	00
04-002-2-48-04-02-2 05-001-03000	WEMERT	2390 23 1/2 AV RICE	LAKE WA	54969	00
04-002-2-48-04-02-2 05-001-04000	HOLM	36 8 ST	ST PAUL MN	55100	00
04-002-2-48-04-02-2 05-001-05000	DERING (J) ET AL	7600 LAKE ST	WASHERURN WI	54901	00
04-002-2-48-04-02-2 05-001-06000	GUSTKE	7490 LAKE ST	WASHERURN WI	54901	00
04-002-2-48-04-02-2 05-001-07000	RIVARD	7080 LAKE ST	WASHERURN WI	54901	00
04-002-2-48-04-02-2 05-001-08000	BLOOMGUST ET AL	7430 LAKE ST	WASHERURN WI	54901	00
04-002-2-48-04-02-2 05-001-10000	C FERRARA & C PETERS	7400 LAKE ST	WASHERURN WI	54901	00
04-002-2-48-04-02-2 05-001-11000	1700 SHILOH BL	HEWA	WILKINSON WI	54912	00
04-002-2-48-04-02-2 05-001-12000	JOHNSON	4783 LAKE ST	WASHERURN WI	54901	00
04-002-2-48-04-02-2 05-001-13000	MAHL	7490 COUNTRY WASHURN	WI	54901-1490	00

Routing Analysis



“Hurricane Duty”



Coastal Debris Mapping and Clean-up



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Parcel Mapping Tips & Tricks

Presented by: Jeremy Holt

GIS Technical Project Analyst



Parcel Mapping Tips & Tricks

General ArcMap Tips

An Overview:

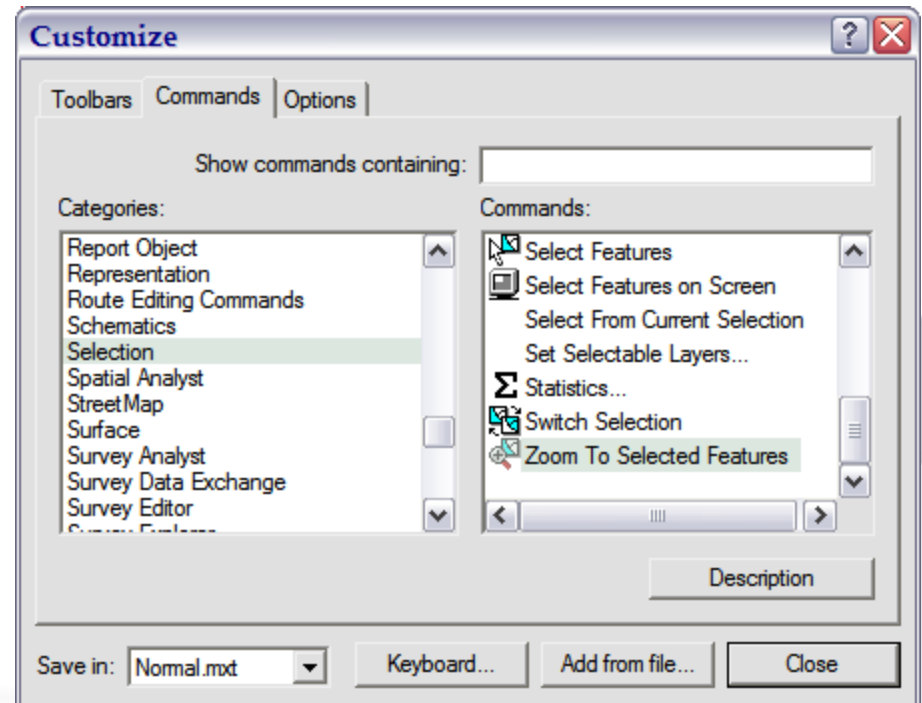
- Creating Custom Toolbars
- Organizing Editing Tasks
- Reordering Snapping Feature Classes
- Helpful Shortcut Keys
- Working With Selection

Parcel Mapping Tips & Tricks

Creating Custom Toolbars

Using the customize option under the Tools menu allows for drag-and-drop of commonly used tool buttons.

Adding the SAVE EDITS button and the ZOOM TO SELECTED button to your Standard toolbar can be good time and click savers!



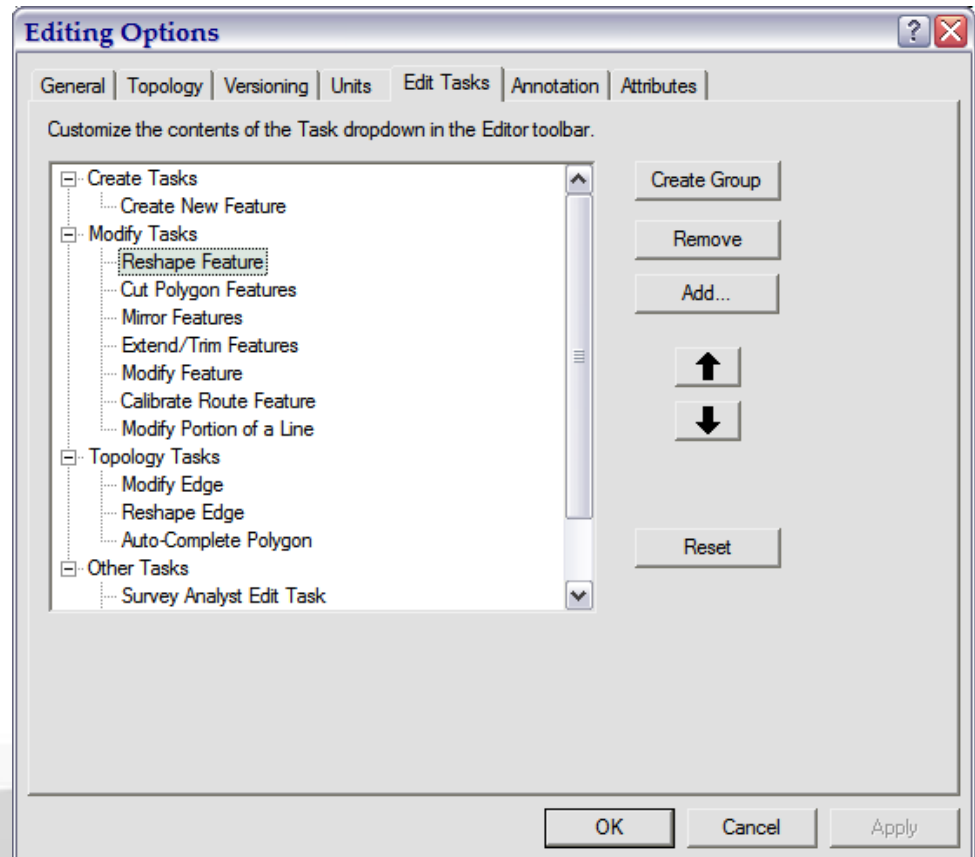
Parcel Mapping Tips & Tricks

Organizing Editing Tasks

Found under Editor ->Options

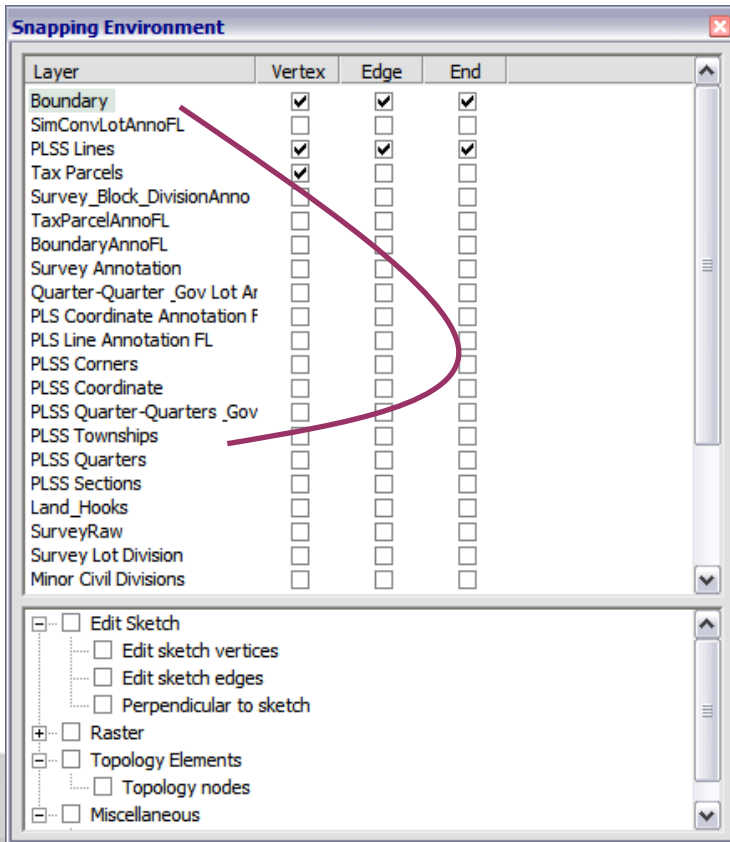
Allows you to group, add/remove and reorder your edit tasks.

Helpful to keep the most often used tasks near the top.



Parcel Mapping Tips & Tricks

Reordering Snapping Feature Classes



Click and drag to adjust the snapping hierarchy.

The Feature Class on top will be snapped to and shown in the Snap Tips box.

Helpful when there are overlapping feature classes.

Parcel Mapping Tips & Tricks

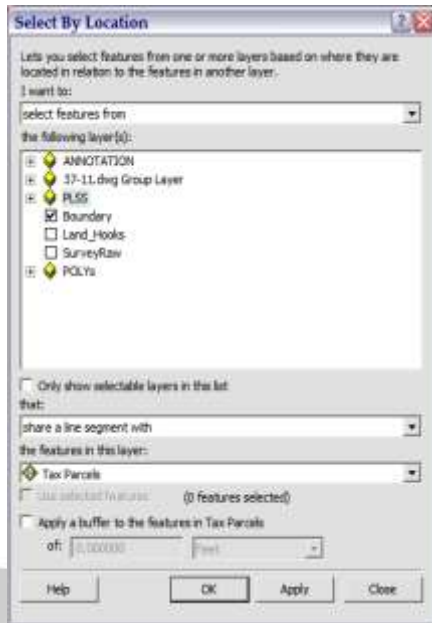
Helpful Shortcut Keys

Key	Function
C	Switch to panning mode
Z	Zoom in
X	Zoom out
V	Show vertices
E	Toggle between Sketch tool, Edit tool, and Edit Annotation tool
Space	Suspend snapping
F2	Finish sketch (when using sketch tool)
Ctrl P	Parallel (when using sketch tool)
Ctrl F7	Snap to Feature: Midpoint (when using sketch tool)
Many more can be found in the Help. Also, you can make your own keyboard shortcuts with the customize tools option.	

Parcel Mapping Tips & Tricks

Working with Selection

Using Select by Location



A common use is to select lines which are also Parcel boundaries, then you can code them as Parcel lines, switch the selection and then code as Non-Parcel lines.

Our data models use a Parcel Line Type field

Using Select by Line



This is helpful when you have features arranged at angles and an area selection would yield too many features.

Set the edit task to Select Features Using A Line and with the Sketch tool, draw a line which intersects the features you wish to select. All intersecting features will be selected

Make sure you have your Interactive Selection Method set accordingly

Parcel Mapping Tips & Tricks

Construction Tips & Tricks

An Overview:

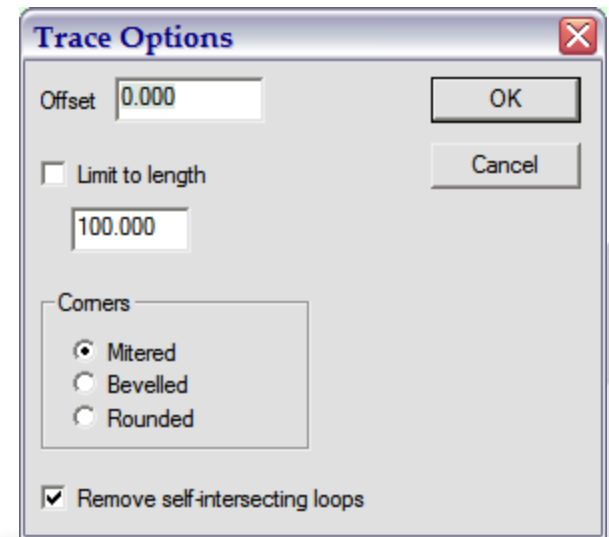
- Trace Tool
- Distance-Distance Tool
- Attribute Transfer Tool
- Copy & Paste Attributes
- Modify Tasks

Parcel Mapping Tips & Tricks

Using The Trace Tool When Building Polygons

When trying to build polygon features from line features, sometimes you have tiny mis-closures or gaps that you can't always catch. Rather than zoom in and around trying to find the problem, try this:

With line features selected, use the trace tool with an offset of 0 and follow the selected features. When the trace suddenly stops, you have found your error and can zoom in to fix it.

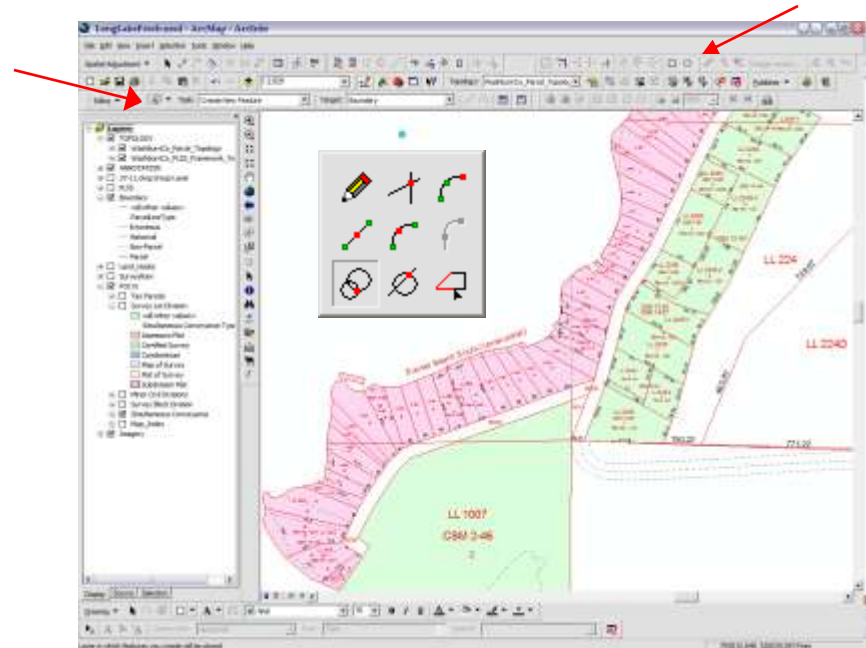


Parcel Mapping Tips & Tricks

Using The Circle or Distance-Distance Tool

At times you may come across descriptions with a distance, but no bearing or angle (ex. northerly or southeasterly).

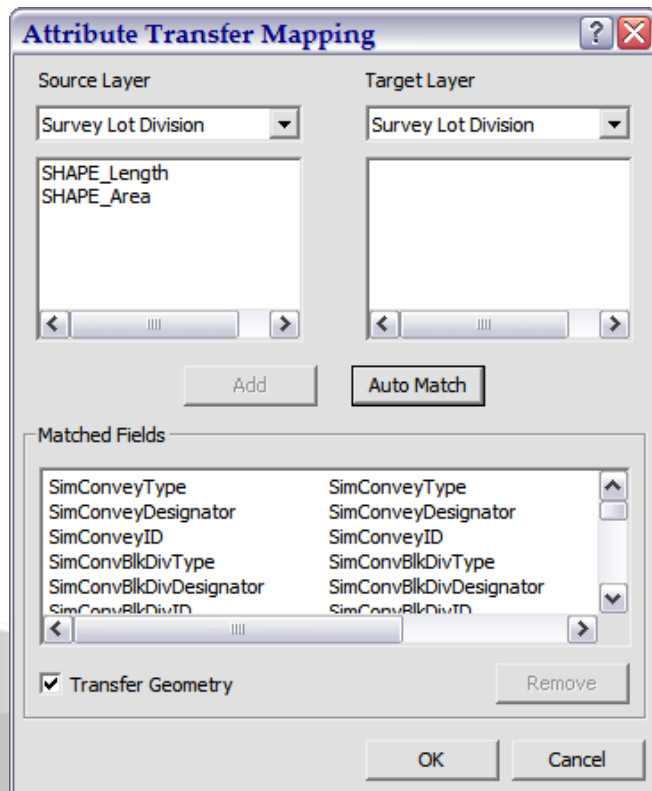
Older subdivision plats tend to show lot dimensions without bearings and can be somewhat tricky to map.



In cases like this, the Circle Tool or the Distance-Distance Tool are quite helpful.

Parcel Mapping Tips & Tricks

Using The Attribute Transfer Tool



Sometimes it may be easier to delete a feature and just recreate it rather than modify it.

A way to preserve the attributes is to use the Attribute Transfer Mapping tool found on the Spatial Adjustment toolbar.

This way you can create a new feature, and transfer all the related attributes to it from the older feature before deleting it.

This is also good for getting bits and pieces of data from one feature to another, like putting road name data from a shapefile into your boundary lines or transferring survey data into your tax parcels.

Parcel Mapping Tips & Tricks

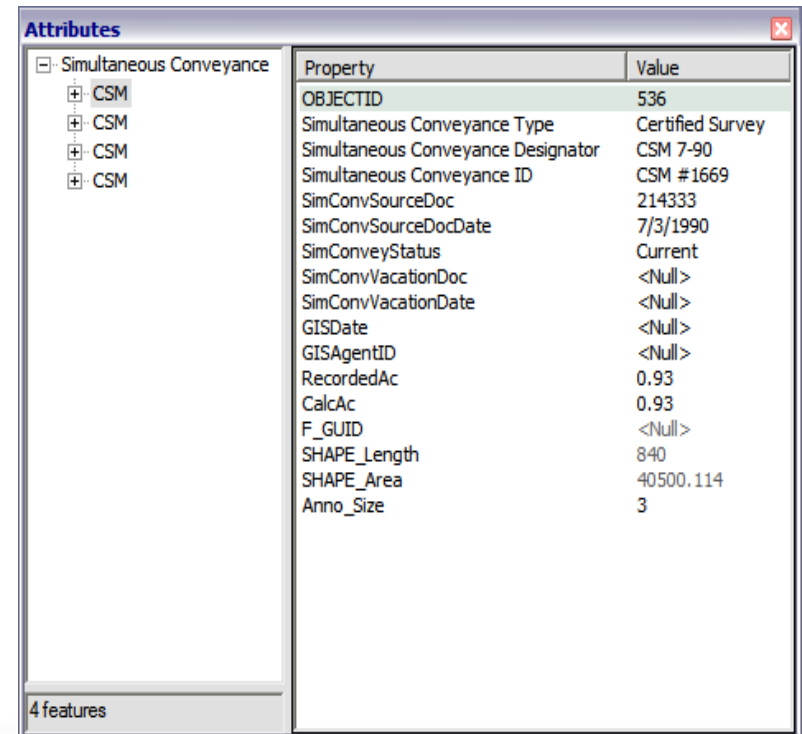
Copy and Paste Attributes

Another way of getting attributes from one feature to another is a simple copy and paste within the attribute window.

With multiple features selected, right click on one feature and choose copy. You can apply the paste to one feature or to all selected features.

This works great when many polygons have the same attributes (like subdivision lots or PLSS polys).

By clicking on the feature class listed in the table, you can make changes to individual fields that will be applied to all the selected features.



Property	Value
OBJECTID	536
Simultaneous Conveyance Type	Certified Survey
Simultaneous Conveyance Designator	CSM 7-90
Simultaneous Conveyance ID	CSM #1669
SimConvSourceDoc	214333
SimConvSourceDocDate	7/3/1990
SimConveyStatus	Current
SimConvVacationDoc	<Null>
SimConvVacationDate	<Null>
GISDate	<Null>
GISAgentID	<Null>
RecordedAc	0.93
CalcAc	0.93
F_GUID	<Null>
SHAPE_Length	840
SHAPE_Area	40500.114
Anno_Size	3

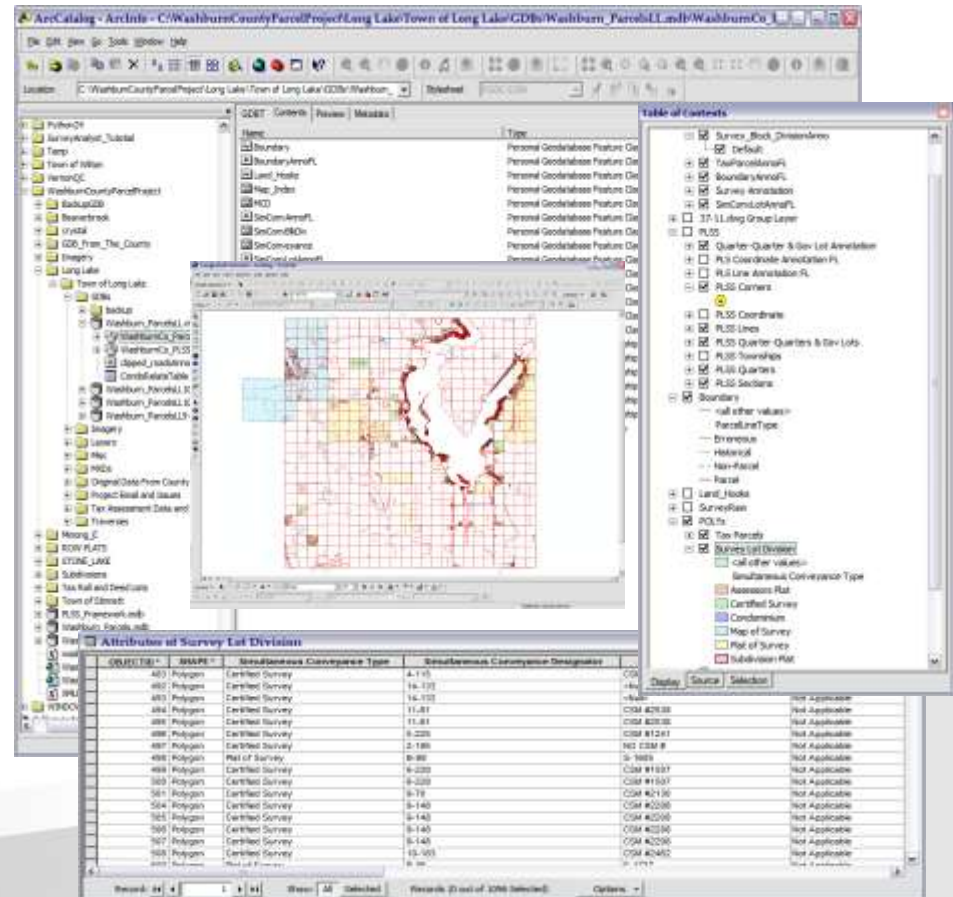
4 features

Parcel Mapping Tips & Tricks

Parcel Data Management Tips

Things that may be helpful:

- Standardize attributes
 - Conform comments/types
- Setup domains/subtypes
 - Prevents typos/errors
- Hide attribute fields
 - Work with only what you need
- Save symbology layers



Parcel Mapping Tips & Tricks

A Brief Mention of Cadastral Editor Extension for Survey Analyst

- Cadastral Editor is a new set of tools for the Survey Analyst extension available since SP3
- Seeks to improve spatial accuracy by combining accurate control with older land records in a cadastral fabric
- Stores and tracks parcel history
- Allows for integration/migration of existing parcel data
- ADC Staff will be attending Survey Analyst training and potentially incorporating into parcel work

Parcel Mapping Tips & Tricks

Thanks!

Feel free to ask any questions or
share your own tips.

1-888-933-6447

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Ross.Kleiner@adc4gis.com