Práca v ArcGIS Desktop

(školenie)

Spracovala: Hana Stanková



Cvičenie 4:

Tvorba a editácia vektorových vrstiev

Spracovala: Hana Stanková





🔊 ArcCatalog - ArcEditor - E:\Data	\SHP_MDB\geomedia			
File Edit View Go Tools Window	Help			
	::: 🛲 🚥 💊 🛯 🔥 🛤 📼 🍾			
Location: [E:\Data\SHP_MDB\geo	omedia			
Stylesheet: FGDCESRI				
<u>x</u>	Contents Preview Metadata		~	
	Name		Eolder	1
🖃 🛁 geologia			🗍 File Ge <u>o</u> database	
E Sop	Esty86.shp		🗍 Personal Geodatabase	
aeol.mxd	🖶 Cesty98.shp		→ Laver	
E geomedia	🔠 Chodniky86.shp			
🕀 💼 Popis	🔠 Chodniky98.shp		Server	
Cesty86.shp	KP86.shp		Shapefile	
Cesty98.shp	KP86_98.shp		Coverage Relationship Class	
Chodnikyoo.snp	KP86_98B_MFu.shp		Turn Feature Class	
El KP86.shp	KP86_INC.SNP			
		Conv. Child		
KP86_int.shp	KP98_BHAT.shp	E Paste Ctri+v		
KP86_MF.shp	KP98_BHATu.shp	X Delete	III INFO table	
	KP98A_KOMB.shp	Rena <u>m</u> e F2	🖞 Co <u>v</u> erage	
KP98 BHAT.shp	KP98A_KOMBu.shp	C Refresh	🦥 Address Locator	
KP98_BHATu.sh	KP98B_MF.shp	New ►	X XML Document	
KP98A_KOMB.st	Lanovky vleky shn	Search	Shapefile	
KP96A_KOMBU.:		Search	Shapefile	
KP98B MFu.shp	Popis_budovy86.shp	Properties	Shapefile	
Lanovky_vleky.:	Popis_budovy98.shp		Shapefile	
Popis.shp	🚨 Popis_vody.shp		Shapefile	
Popis_budovy86	🗮 Vodne_toky.shp		Shapefile	
Popis_budovy98				
Vodpe toky.shp				
📄 🗄 🛅 otahel 🔤				
i i 📩 🖓 12 22				

Creates a new shapefile

49:

ß	💙 ArcCatalog - ArcEditor - E:\Data\SHP_M	DB\geomedia			
ESRI	Eile Edit View Go Tools Window Help				
	💪 😂 🍘 🖻 🛱 🗙 🗠 🏥 🏢	88 😣 🍳 🕸 🗉 🕽	× 🕅 🧟 🖉 🖑	● ← → ● 忠	
	Location: E:\Data\SHP_MDB\geomedia		_		
	Stylesheet: FGDCESRI 🔽 🛃	술달날로			
	Sector Se	Preview Metadata			
reate New Shapefile	?)	×		- Eolder - 🗍 File Geodatabase	
Name: New	w_Shapefile	i.shp		Personal Geodatabase	
		8.shp		🔶 Layer	-
Poi	nt 🗾	y86.shp y98.shp		😺 Group Layer	_
- Spatial Reference - Pol	yline	P		Shapefile	
Description: Poly	ygon ItiPoint	B.shp BB MFu.shp		Coverage Relationship Class	
Unknown Coordinate	ltiPatch	t.shp		Jurn Feature Class	
Show Details Coordinates will conta Coordinates will conta	Edit Edit ain M values. Used to store route data. ain Z values. Used to store 3D data.	F.shp Fu.shp p HAT.shp HATu.shp KOMBu.shp KOMBu.shp MFu.shp MFu.shp r_vleky.shp udovy86.shp udovy98.shp ody.shp coky.shp	Copy Ctrl+C Paste Ctrl+V Pelete Rename Refresh Pelete New Pelete New Pelete Person Pelete Person Pelete Person Pelete Person Person	 Toolbox ArcInfo Workspace dBASE Table JNFO table Coverage Address Locator XML Document Shapefile Shapefile Shapefile Shapefile Shapefile Shapefile Shapefile Shapefile Shapefile 	
	Creates a new shapefile				

C



? × Create New Shapefile New_Shapefile Name: Feature Type: Point Point Spatial Reference Polyline Polygon Description: MultiPoint Unknown Coordinate System -€ Show Details Edit... Coordinates will contain M values. Used to store route data. Coordinates will contain Z values. Used to store 3D data. OK. Cancel





? × Create New Shapefile New_Shapefile Name: Feature Type: Point Point Spatial Reference Polyline Polygon Description: MultiPoint Unknown Coordinate MultiPatch Show Details Edit... Coordinates will contain M values. Used to store route data. Coordinates will contain Z values. Used to store 3D data. OK. Cancel



Multipoint – objekty reprezentované viac ako jedným bodom (napr. mračno bodov z LIDAR-u)



Freate New Shapefile		<u>?</u> ×
Name:	New_Shapefile	
Feature Type:	Point	•
Spatial Reference —	Point Polyline Polyaon	
Description:	MultiPoint MultiPatch	
		_ _
C Show Dataila		
Coordinates will o	contain M values. Used to stor contain Z values. Used to store	e route data. e 3D data.
	OK	Cancel



Multipatch – 3D geometria na reprezentáciu vonkajšieho povrchu (obálky) priestorových objektov (napr. budovy)



Spatial Reference	Properties	? ×
XY Coordinate Syst	em	
Name: Uni	known	
Details:		
		<u> </u>
<u>S</u> elect	Select a predefined coordinate system.	
Import	domains from an existing geodataset (e.g.,	
New -	reature dataset, reature class, raster).	
	Create a new coordinate system.	
M <u>o</u> dify	Edit the properties of the currently selected coordinate system.	
⊆lear	Sets the coordinate system to Unknown.	
Sa <u>v</u> e As	Save the coordinate system to a file.	
	OK Storno	Použít



Spatial Reference	Properties	? ×
XY Coordinate Sys	item	
Name: S-	JTSK_Krovak_East_North	
Details:		
Projection: Krov False_Easting: False_Northing: Pseudo_Standa Scale_Factor: 0 Azimuth: 30.28 Longitude_Of_C Latitude_Of_C X_Scale: -1.000 Y_Scale: 1.0000 XY_Plane_Rota Linear Unit: Met	vak 0.000000 : 0.000000 rrd_Parallel_1: 78.500000 .999900 8140 Eenter: 24.833333 enter: 49.500000 0000 0000 tion: 90.000000 ter (1.000000)	
<u>S</u> elect	Select a predefined coordinate system.	
[Import]	Import a coordinate system and X/Y, Z and M domains from an existing geodataset (e.g., feature dataset, feature class, raster).	1
<u>N</u> ew →	Create a new coordinate system.	
Modify	Edit the properties of the currently selected coordinate system.	
⊆lear	Sets the coordinate system to Unknown.	
Sa <u>v</u> e As	Save the coordinate system to a file.	
	OK Storno	P <u>o</u> užít



ArcCatalog úlohy č.66-67



Editor – Start Editing – ak máme v projekte vrstvy uložené v rôznom adresári alebo databáze, ponúkne nám na výber

- **Editor Save Edits, Stop Editing**
- Target cieľová vrstva (dôležité !)
- Task úloha Create New Feature
- Sketch Tool ceruzka
- ukončenie editácie dvojklik, F2, kontextové menu – Finish Sketch
 Attributes – vypĺňanie atribútov

Attributes			×
⊡ body	Property	Value	
. .0	FID	3	
	Id	0	
1 features			



- Editor Start Editing
- kontextové menu vrstvy Edit Features Start Editing
- nepracujeme s cieľovými vrstvami a úlohami, ale používame tzv. šablóny – Templates
- šablóny sa dajú pridávať, kopírovať, meniť a vymazávať
- ukladajú sa v mapovom dokumente (.mxd) a vrstve (.lyr)





Editácia – ArcGIS 10

ESRI

• okno na prácu so šablónami – Create Features



šablóna

 vlastnosti šablóny – dvojklik alebo kontextové menu – Properties

zoznam dostupných nástrojov

ESRI • okno n	cia – Arco a prácu so ša	General Name:	10 erties			<u>? ×</u>
Create Features	 šablóna vlastnos kontexto 	Description: Tags: Default <u>I</u> ool: Target Layer: Default <u>I</u> ool: Target Layer: Id text	Polygon Polygon polygony	0	Drawing Sy	/mbol
Non-Residential Residential Residential Residential Residential Reconstruction Tools Rectangle Circle Ellipse Rectand Auto Complete Polygon	→ zoznam			ΟΚ	Storno	Použít



Editácia – ArcGIS 10



• Attributes

Attributes		ч ×
< 🔁 🕹 🖉 🕹 🕹 🕈		
E 🔷 polygony		
EID	1	<u> </u>
Id	- 0	
text		
FID Object ID Null values not allowed		
Create Features	Attributes	

Prichytávanie – ArcGIS 9

Editor Editor 💌

ESRI

Task: Create New Featu

Ø

ire	•	Target:	body

7 |

Editor – Options

Editor – Snapping

			×	:
Layer	Vertex	Edge	End	
body linie polygony				
		Edit Sketc Edit sl Edit sl Perpe Topology Topology Miscellane Surve	n ketch verti ketch edge ndicular to Elements ogy nodes ogy nodes vy Points	ices es o sketch

diting Options	<u>? ×</u>
General Topology Versioning Units Edit Tasks An	notation Attributes
Display measurements using	decimal places
Snapping tolerance: 7	pixels
Sticky move tolerance: 0	pixels
Show snap tips	ex
Stream Mode	5
Group 50 points together when streaming	
ОК	Storno Použít

×

 \square

🖸 🔀 💿 🔳



Prichytávanie – ArcGIS 10

- je defaultne zapnuté
- vypnúť alebo nastaviť ho môžeme v paneli nástrojov
 Snapping





klasické prichytávanie sa dá zapnúť v Editor – Options –
 General – Use classic snapping



Prichytávanie – ArcGIS 10

- je defaultne zapnuté
- vypnúť alebo nastaviť ho môžeme v paneli nástrojov
 Snapping

Options



\bigcirc	Point snapping	Snapping
8	End snapping	Genera <u>T</u> oler
	Vertex snappin	<u>S</u> nap ⊂Snap T
讧	Edge snapping	₽ s

klasické prichytávanie sa dá zapnúť
 General – Use classic snapping

General
Tolerance: III Pixels
Snap Symbol:
Snap Tips
Show Tips
🔽 Layer Name
☑ S <u>n</u> ap Type
Eackground
T <u>e</u> xt Symbol
OK Cancel

? X



Tvorba a editácia údajov

Editor	Task: Create New Feature	Target: polygony	
	Editor Edito <u>r</u>	A 🖊 🖍 💭 👾 I 🖾 🗅	× + 1 🛆 🗉 <u> o</u> X 🕂 :
		Č Č Č	

Trace Tool – tvorba susediacich polygónov

ArcGIS 9 – sledovaný polygón musí byť vybraný

ArcGIS 10 – polygón nemusí byť vybraný

Split Tool – rozdelenie línie **Rotate Tool** – otočenie línie (polygónu)





ArcMap úlohy č.68-69



Clip – orezanie prvkov podľa vybraného prvku

	Clip	? ×	
	Buffer Distance: 5 When clipping features • • Preserve the area that intersects • • Discard the area that intersects •	Copy Parallel Template Distance: 100.000 Side:	?×
opy Parallel – vytvo	renie rovnobežnej	Corners: Mitered	
línie v	v určitej vzdialenosti	 Treat selection as a single line Create a new feature for each selected line Remove self-intersecting loops 	
		OK Cancel	



Split	? ×	Split	<u>? ×</u>
Line Length: 19179,799 Split Distance along the line Percentage of the line length Measure along the line	OK Cancel	Line Length: 27736.180 Split Options Distance Into Equal Parts Percentage	
Orientation • From Start Point of Line • From End Point of Line		Percentage By Measure Orientation From Start Point of Line From End Point of Line	0
			OK Cancel



Divide – tvorba bodov pozdĺž línie (rovnomerne alebo v určitej vzdialenosti)

ArcGIS 10

Construct Points

C	Divide
	Create new features
	Place 2 points along the line, spaced evenly
	Place points separated by every 0,000 units
	C Place points separated by every measure units
	Delete the selected feature
	OK Cancel

Construct Points	<u>? ×</u>
Template 🕨 body	,
Line Length: 27736.180	
Construction Options	
• Number of Points	4
C <u>D</u> istance	
C By Measure	
Create additional points	at start and end
Orientation	
C From Start point of Line	
C From End point of Line	
	OK Cancel



Merge	<u>? ×</u>
Choose the feature with which other features will be merged:	ОК
polygony - polygony - 7	Cancel

Union – zjednotenie viacerých prvkov z rôznych vrstiev

Union		<u>?</u> ×
Choose a template t	o create feature(s) wit	h:
Template	polygony	
	OK	Cancel

Intersect – priestorový prienik prekrývajúcich sa prvkov (ArcGIS 9)



ArcMap úlohy č.70-72



Pokročilá editácia



Circle

Advanced Editing	×
☑ 카⊣+ ↗ ※루루 □	\circ

Advanced E	diting				r X
2 7 -•	+ /	1	0	Г	Г <u>с</u>

--- Extend

nedoťahy

Trim

🔆 Explode

rozdelenie na jednotlivé

• presahy

prvky

Button	Name	Function
2	Copy Features	Copies features
7	Fillet	Allows you to place an arc tangent to two segments
+ <u> </u>	Extend	Extends a line feature to meet the selected feature
÷	Trim	Trims a line feature that is cut by a selected feature
1	Line Intersection	Intersect features at either explicit or implied intersections
8	Explode	Separates a multipart feature into individual features
r _r .	Generalize	Generalizes the selected line and polygon features
r <mark>e</mark>	Smooth	Smoothes the selected line and polygon features
	Rectangle	Creates a rectangle

Creates a circle



Pokročilá editácia

Advanced Editing ⊠ □ □ ↓ ↓ ↓ ↓ ↓ ↓ ↓

Advanc	ed E	ditir	ıg				• X
27	+	+	-	\sim	0	Г	7

Button	Name	Function
	Copy Features	Copies features
7	Fillet	Allows you to place an arc tangent to two segments
+	Extend	Extends a line feature to meet the selected feature
+-	Trim	Trims a line feature that is cut by a selected feature
1	Line Intersection	Intersect features at either explicit or implied intersections
*	Explode	Separates a multipart feature into individual features
r _r .	Generalize	Generalizes the selected line and polygon features
F _C	Smooth	Smoothes the selected line and polygon features
	Rectangle	Creates a rectangle
0	Circle	Creates a circle







OK.

Cancel

Maximum allowable offset: 5 OK Cancel



ArcMap úlohy č.73-75



Tvorba vrstvy zo súradníc x,y

ArcGIS 9

• súradnice v tabuľke (napr. xls)

Tools – Add XY Data

- vrstvu musíme exportovať do formátu shapefile, lebo zatiaľ nemá pole ID
 ArcGIS 9, 10
- v ArcCatalogu kontextové menu Create
 Feature Class From XY Table



Tvorba vrstvy zo súradníc x,y

ArcGIS 9

• súradnice v tabuľke (napr. xls)

Tools – Add XY Data

- vrstvu musíme exportovať do forn shapefile, lebo zatiaľ nemá pole II ArcGIS 9, 10
- v ArcCatalogu kontextové men Feature Class – From XY Table

Add XY Data	? ×
A table containing X and Y coordinate data can be a map as a layer	added to the
Choose a table from the map or browse for another ta	able:
×y\$	▼ 🖻
\square Specify the fields for the X and Y coordinates: —	
≚ Field: x	•
⊻ Field: y	•
Coordinate System of Input Coordinates	
Description:	
Unknown Coordinate System	<u> </u>
Show <u>D</u> etails	<u></u> dit
✓ Warn me if the resulting layer will have restricted	functionality
ОК	Cancel



Tvorba vrstvy zo súradníc x,y

ArcGIS 9

súradnice v tabuľke (napr. xls)

Tools – Add XY Data

- vrstvu musíme exportovať do forn shapefile, lebo zatiaľ nemá pole II ArcGIS 9, 10
- v ArcCatalogu kontextové men
 Feature Class From XY Table





ArcMap úloha č.76



Spracovanie údajov v ArcToolboxe

ESRI







Spracovanie údajov v ArcToolboxe ArcGIS 9

ArcToolbox 🛛	ArcToolbox	ArcToolbox 🗵
ArcToolbox Image: Second S	ArcToolbox Image: Constraint of the search for: Type in the word(s) to search for: Image: Constraint of the search for: Search Image: Constraint of the search for: Tool Toolbox Buffer Analysis Tools Multiple Ring Buffer Analysis Tools	ArcToolbox Current Session Previous Sessions Yesterday Yesterday
Add Terrain Points (3d) Add Terrain Pyramid Level (3d) Locate Favorites Index Search Results	Locate Favorites Index Search Results	Favorites Index Search Results



Spracovanie údajov v ArcToolboxe

ESRI

ArcGIS 10:

Search 🗢 🗧	×
🗢 🔶 🚰 🗄 🖾 Local Search	- Sea
ALL Maps Data Tools	<u>≜</u>
buffer Q	3
Search returned 4 items. Help	Cata
Analysis Summary: not available. toolboxes\system toolboxes\analysis tools	Ū
Buffer (Analysis) Creates buffer polygons around input fea toolboxes\system toolboxes\analysis tools	
Multiple Ring Buffer (Analysis) Creates multiple buffers at specified dista toolboxes\system toolboxes\analysis tools	
Select Layer By Location (Data Management) Adds, updates, or removes a layer's selec toolboxes\system toolboxes\data manage	





ArcToolbox

- nástroje na:
 - správu údajov
 - konverziu údajov,
 - spracovanie formátu coverage,
 - vektorové analýzy
 - geokódovanie,
 - štatistické analýzy.....atď.
- každá úroveň produktu ArcGIS (ArcView, ArcEditor, ArcInfo) poskytuje iný počet nástrojov v Arc Toolbox-e
- Arc Toolbox je k dispozícii vo všetkých aplikáciách ArcGIS Desktop



Spracovanie priestorových údajov (Geoprocessing)

- činnosť v GIS, ktorá umožňuje definovať, spravovať a analyzovať GI za účelom tvorby rozhodnutí
- medzi bežné operácie v rámci spracovania priestorových údajov patrí prekrývanie objektov, výber a analýza prvkov, spracovanie topológie a konverzia údajov
- štandardne sa na vstupnú údajovú vrstvu (sadu vrstiev) aplikuje nejaká operácia a výsledok sa zapíše do novej údajovej vrstvy (sady vrstiev)



Orezanie vrstvy – Clip

×

ArcToolbox 🐻 ArcToolbox 🗄 🚳 3D Analyst Tools 🗄 🚳 Analysis Tools 🗄 🔕 Extract 🥕 Clip 🎤 Select 🎤 Table Select 🗄 🚳 Overlay 🗄 🚳 Proximity 🗄 🚳 Statistics 🔯 Cartography Tools 🗄 🚳 Conversion Tools 🗄 🚳 Data Interoperability Tools 🗄 🚳 Data Management Tools 🗄 🚳 Geocoding Tools 🗄 🚳 Geostatistical Analyst Tools 🗄 🚳 Linear Referencing Tools 🗄 🚳 Mobile Tools 🗄 🚳 Multidimension Tools 🗄 🚳 Network Analyst Tools 🗄 🚳 Samples 🗄 🚳 Schematics Tools 🗄 🚳 Server Tools 🗄 🚳 Spatial Analyst Tools 🗄 🚳 Spatial Statistics Tools 🗄 🚳 Tracking Analyst Tools Favorites Index Search Results

Analysis Tools – Extract – Clip

			Cip	
Clip Features			Extra	icts input features that
hranice kraj			overla	ay the clip features.
Output Feature Class				
E:\Dokumenty\Vyuka\PG	UvGIS\zeleznice_kr_Clip1.shp	🖻		INPUT
XY Tolerance (optional)	Meta	rs 💌		+
			CLI	P FEATURE



Orezanie vrstvy – Clip

×

ESRI



Analysis Tools – Extract – Clip

	Clip	×
ip Clip	Completed Close	
zeleznice_kr	<< Details	
Clip Features	Close this dialog when completed successfully	s input features that the clip features.
Output Feature Cl	Cracking Features Assembling Features	
XY Tolerance (opti	Executed (Clip) successfully. End Time: Sat Feb 27 15:30:21 2010	PUT
	(Elapsed Time: 1.00 seconds)	
		+
	() () () () () () () () () ()	
	v	
0	K Cancel Environments << Hide Help To	ool Help



ArcMap úloha č.77



Prekrývanie vrstiev – Overlay



×





Tvorba zón okolo objektov – Buffer

ArcToolbox 🐻 ArcToolbox 🗄 🚳 3D Analyst Tools 🗄 🚳 Analysis Tools 🗄 🚳 Extract 💩 Overlay ÷ 🗄 🚳 Proximity 🥜 Buffer - 😹 Multiple Ring Buffer 🗄 🚳 Statistics | 🚳 Cartography Tools 🗄 🚳 Conversion Tools 🗄 🚳 Data Interoperability Tools 🗄 🚳 Data Management Tools 🗄 🚳 Geocoding Tools 🗄 🚳 Geostatistical Analyst Tools 🗄 🚳 Linear Referencing Tools 🗄 🚳 Mobile Tools . 🗄 🚳 Multidimension Tools 🗄 🚳 Network Analyst Tools 🗄 🚳 Samples 🗄 🚳 Schematics Tools 🗄 🚳 Server Tools 🗄 🚳 Spatial Analyst Tools 🗄 🚳 Spatial Statistics Tools 🗄 🚳 Tracking Analyst Tools Favorites Index Search Results

×

Analysis Tools – Proximity – Buffer





Generalizácia podľa atribútov – Dissolve

ESRI



Data Management Tools – Generalization

- Dissolve



INPUT





ArcMap úlohy č.78-80



Generalizácia línie – Simplify Line

ArcToolbox 🚳 Cartography Tools ٠ 🗄 🚳 Conversion Tools 🗄 🚳 Data Interoperability Tools 🚊 🚳 Data Management Tools 🗄 💩 Data Comparison 🕂 🗞 Database 🗄 🚳 Disconnected Editing 🗄 🚳 Distributed Geodatabase 🕂 🗞 Domains 🗄 💩 Feature Class 🗄 🚳 Features 🕂 🗞 Fields 🗄 💩 File Geodatabase 🗄 🚳 General 🗄 🚳 Generalization 🎤 Dissolve 🎤 Simplify Line Smooth Line 🗄 🚳 Indexes ÷ 💫 Joins 🗄 🚳 Layers and Table Views 🕀 🚳 Projections and Transformatio 🕂 🗞 Raster 🗄 🗞 Relationship Classes 🗄 🚳 Subtypes 🗄 🚳 Table 🗄 🀔 Tanalagu Favorites Index Search Results

Data Management Tools – Generalization - Simplify Line POINT REMOVE BEND SIMPLIFY ORIGINAL SIMPLIFIED



Vyhladenie línie – Smooth Line

ArcToolbox 🚳 Cartography Tools 🗄 🚳 Conversion Tools 🗄 🚳 Data Interoperability Tools 🖻 🚳 Data Management Tools 🗄 💩 Data Comparison 🕂 🗞 Database 🗄 🚳 Disconnected Editing 🗄 🗞 Distributed Geodatabase 🕂 🗞 Domains 🗄 🚳 Feature Class 🗄 🚳 Features 🕂 🗞 Fields 🗄 🔕 File Geodatabase 🕂 🗞 General 🖻 💫 Generalization 🎤 Dissolve 🎤 Simplify Line Smooth Line 🗄 🚳 Indexes 💫 Joins ÷ 🗄 🚳 Layers and Table Views 🕀 🚳 Projections and Transformatio 🕀 🗞 Raster 🗄 🗞 Relationship Classes 🗄 🚳 Subtypes 🗄 🚳 Table 🗄 🍝 Tapalagu Favorites Index Search Results

٠



 v licencii ArcInfo aj nástroje Simplify Polygon a Smooth Polygon



Konverzia z rastra do vektora



Conversion Tools – From Raster – Raster to Point / Polyline / Polygon

 Raster to Polygon			<u> </u>
Input raster			
kp.tif		•	2
Field (optional)			
Value			•
Output polygon features			
E:\Data\GIS\kp2.shp			
Simplify polygons (optional)			v
	OK Cancel Environments	Show H	lelp >>



Konverzia z vektora do rastra



Conversion Tools – To Raster – Feature to Raster Point / Polyline / Polygon to Raster

Nolygon to Raster		_ D ×
Input Features		_
clc	_	2
Value field		
CODE00550		•
Output Raster Dataset		
E:\Data\GIS\clc3		2
Cell assignment type (optional)		_
CELL_CENTER		•
Priority field (optional)		
NONE		T
Cellsize (optional)		
100		<u></u>
		v
	OK Cancel Environments Show H	telp >>



Konverzia z/do formátu KML (KMZ)

ArcToolbox	
🚳 ArcToolbox	-
🗄 🌍 3D Analyst Tools	1
🗄 🌍 Analysis Tools	
🗄 🌍 Cartography Tools	
😑 🍣 Conversion Tools	
🖹 💫 From KML	
KML To Layer	
🕀 🐑 From Raster	
Erom WFS	
🛛 🕀 🕎 Metadata	
To CAD	
🛨 🐟 To Collada	
To Coverage	
To dBASE	
To Geodatabase	
Map To KML	
🕀 🥎 To Shapenie	
Baca Interoperability Tools	
Editing Tools	
Eliciting Tools	
E Geostatistical Apalyst Tools	
Results ArcToolbox	

Conversion Tools – From KML – KML To Layer Conversion Tools – To KML – Layer To KML, Map To KML

🔨 Layer To KML				_ 0
Layer				
linie				- 🖻
Output File				
E:\Data\GIS\linie.kmz				6
Layer Output Scale				
5000				
✤ Data Content Properties				
♦ Output Image Properties				
1				
	ОК	Cancel	Environments	Show Help >>

×



Export do formátov JPG, TIFF, IMG ...

ESRI

kontextové menu vrstvy – Data – Export Data

Export Raster Data - clc2			? × TIFF
Extent Data Erame (Current) Raster Dataset (Original) Selected Graphics (Clipping) Output Raster Use Renderer Force RGB Use Cologmap Name Bands Pixel Depth Uncompressed Size Extent (left, top, right, bottom) Spatial Reference	Clip Inside	Spatial Reference Data Frame (Current) Raster Dataset (Original) Cell Size (cx, cy): 100 (columns, rows): 401 NoData as: 00, -1225000.0000, -367900.0000, -1184900.0	BMP ENVI ESRI BIL ESRI BIP ESRI BSQ GIF GRID IMAGINE Imag JP2 JPG PNG
Location: Na <u>m</u> e: Compression Type:	E:\Data\GIS clc.tif NONE	Format: TIFF Compression Quality 75 (1-100): Save	Cancel



ArcMap úlohy č.81-82



Definovanie súradnicového systému – Define Projection



Data Management Tools – Projections And Transformations – Define Projection

- definovanie súradnicového systému vrstvy

- pri formáte shapefile sa vytvorí súbor .prj



Zmena súradnicového systému – Project

ArcToolbox



Data Management Tools – Projections And Transformations – Feature – Project - zmena (transformácia) súradnicového

systému vrstvy

1	Project		×
Γ	Input Dataset or Feature Class		
	linie	2	
	Input Coordinate System (optional)		
	S-JTSK_Krovak_East_North	Ľŕ	
	Output Dataset or Feature Class	_	
	E:\Data\GIS\linie_wgs84.shp	2	
	Output Coordinate System		
	GC5_WG5_1984	2	
• ا	Geographic Transformation (optional)		
		-	
	S_JTSK_To_WGS_1984_1 S_JTSK_To_WGS_1984_2 S_JTSK_To_WGS_1984_3 S_JTSK_To_WGS_1984_4 S_JTSK_To_WGS_1984_NGA		T
	OK Cancel Environments Show H	lelp >>	



Transformácie súradnicových systémov

www.epsg.org

Geodetic datasets

EPSG dataset version 8.0 MS Access

(stiahnuť a uložiť na disk, otvoriť v MS Access)

Go to FORMS for browsing or data entry/editing Coordinate Reference Systems záznam 3533 – S-JTSK (kód 4156) Find Coordinate Transformations from this CRS Coordinate Transformation 8 transformácií z/do S-JTSK S-JTSK t

	4			
Transformation Parameter	Value	Unit	Parameter File Name	Sign Rev?
X-axis translation	485	metre		Yes
Y-axis translation	169.5	metre		Yes
Z-axis translation	483.8	metre		Yes
X-axis rotation	7.786	arc-second		Yes
Y-axis rotation	4.398	arc-second		Yes
Z-axis rotation	4.103	arc-second		Yes
Scale difference	0	parts per million		Yes

S-JTSK to ETRS89 (4) kód 4827



presnosť do 1 m





Tvorba vlastnej transformácie

Data Management Tools – Projections And Transformations – Create Custom Geographic Transformation

Create Custom Geographic T	ransforma	tion				_	
Geographic Transformation Name							<u></u>
S-JTSK To WGS84 GKU							-
Input Geographic Coordinate Syst	em						
S-JTSK Krovak East North							2
Output Geographic Coordinate Sy	stem					_	
Income and the second s	5.011						2
Custon Constraint Transformation	_						
Custom Geographic Transformatio	n						_
Method							
POSITION VECTOR						•	
POSITION_VECTOR							
Parameters							
Name	Value						
X Axis Translation (meters)	485						
Y Axis Translation (meters)	169.5						
Z Axis Translation (meters)	483.8						
X Axis Rotation (seconds)	7.786						
Y Axis Rotation (seconds)	4.398						
later (1)	1.100						
L			 				
							<u> </u>
		ОК	ancel	Environm	nents	Show Help	>>
		U.	 11001	L'III OI III		Dirottitioip	~~



ArcMap úlohy č.83-84