



Visual Punk

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小组介绍

组名: Visual Punk

组员分工: 郭智溢 数据清洗、服务端后台实现

万珂蓝 界面设计、前端实现、数据项选取、数据收集

王枫 界面设计、数据对照表制作

杨凯 前端技术实验、文档、PPT制作

项目地址:

<http://66.42.44.7:5000>

项目仓库:

https://github.com/FontaineGuo/DataVisualization_LessonProject

选题的意义

通过国际濒危物种贸易公约cites濒危动植物进出口数据来分析濒危动植物进出口流向、以及交易的数量变化，以及用途的变化

数据来源

cites濒危物种信息表

cites 2000-2017年濒危物种交易数据



www.sites.org

清洗数据

- +对两个数据来源中不需要的分析项目去除 并导入至数据库
- +从数据库中将需要的数据转化成json文件

清洗数据

AutoSave ON

cites_listings_short - Excel

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POSSIBLE DATA LOSS

Some features might be lost if you save this workbook in the comma-delimited (.csv) format. To preserve these features, save it in an Excel file format.

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Save As...

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
1	Id	Kingdom	Phylum	Class	Order	Family	Genus	Species	ScientificN	Listing	All_Distribu	All_Distribu	NativeDist	Introducec	Extinct(?)	Distribution				
2	5062	Animalia	Chordata	Mammalia	Artiodacty	Antilocapri	Antilocapri	americana	Antilocapri	I	Canada,M	CA,MX,US	Canada,Mexico	United States of America						
3	4464	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Addax	nasomacul	Addax nas	I	Algeria,Chi	DZ,TD,EG,I	Chad,Mali,Mauritania,Niger,Sudan							
4	3905	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Ammotrag	lervia	Ammotrag	II	Algeria,Chi	DZ,TD,CZ,E	Algeria,Chi,Czech Republic,Mexico,Spain,United States of America							
5	4985	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Antilope	cervicapra	Antilope ci	III	Argentina,(AR,BD,IN,M	India,Nepa	Argentina,Mexico,United States of America							
6	5874	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Bos	gaurus	Bos gaurus	I	Bangladesh	BD,BT,KH,C	Bangladesh,Bhutan,Cambodia,China,India,Lao People's Democratic Republic,Mal							
7	7471	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Bos	mutus	Bos mutus	I	Afghanistan AF,CN,IN,K	China,India,Nepal								
8	11180	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Bos	sauveli	Bos sauveli	I	Cambodia KH,LA,TH,VN		Cambodia,Lao People's Democratic Republic,Thailand,Viet							
9	65574	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Boselaphu	tragocame	Boselaphu	III	India,Nepa	IN,NP,PK,U	India,Nepa	United States of America						
10	6811	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Bubalus	arnee	Bubalus ari	III	Bangladesh	BD,BT,KH,II	Bhutan,Cambodia,India,Myanmar,Nepal,Sri Lanka,Thailand,Viet Nam							
11	4425	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Bubalus	depressico	Bubalus de	I	Indonesia ID		Indonesia							
12	8124	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Bubalus	mindorens	Bubalus mi	I	Philippines PH		Philippines							
13	10958	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Bubalus	quarlesi	Bubalus qu	I	Indonesia ID		Indonesia							
14	3135	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Budorcas	taxicolor	Budorcas t	II	Bhutan,Chi	BT,CN,IN,M	Bhutan,China,India,Myanmar							
15	67978	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Capra	caucasica	Capra cau	II	Azerbaijan AF,GE,RU		Azerbaijan,Georgia,Russian Federation							
16	3780	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Capra	falconeri	Capra falc	I	Afghanistan AF,IN,PK,TJ		Afghanistan,India,Pakistan,Tajikistan,Turkmenistan,Uzbekistan							
17	65582	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Capra	hircus	Capra hirc	III	Afghanistan AF,AM,AZ,		Afghanistan United States of America							
18	65566	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Capra	sibirica	Capra sibir	III	Afghanistan AF,CN,IN,K		Afghanistan,China,India,Kazakhstan,Kyrgyzstan,Mongolia,Pakistan,Russian Federa							
19	3881	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Capricornis	milneedwa	Capricornis	I	Cambodia KH,CN,LA,M		Cambodia,China,Lao People's Democratic Republic,Myanmar,Thailand,Viet Nam							
20	3939	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Capricornis	rubidus	Capricornis	I	Myanmar MM		Myanmar							
21	7979	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Capricornis	sumatraen	Capricornis	I	Indonesia,I	ID,MY,TH	Indonesia,Malaysia,Thailand							
22	10594	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Capricornis	thar	Capricornis	I	Bangladesh	BD,BT,IN,M	Bangladesh,Bhutan,India,Nepal							
23	8418	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Cephaloph	brookei	Cephaloph	II	C%te d'Ivc	CI,GH,LR,SI	C%te d'Ivoire,Ghana,Liberia,Sierra Leone							
24	4497	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Cephaloph	dorsalis	Cephaloph	II	Angola,Ber	AO,BJ,BF,CI	Angola,Burkina Faso,Cameroon,Central African Republic,Congo,C%te d'Ivoire,De							
25	4194	Animalia	Chordata	Mammalia	Artiodacty	Bovidae	Cephaloph	jentinki	Cephaloph	I	C%te d'Ivc	CI,LR,SL	C%te d'Ivoire,Liberia,Sierra Leone							

cites_listings_short

Ready

清洗数据

SQLiteSpy - E:\MyGitHub\Data\Visualization_LessonProject\Project\app\dataprocess\DataSrc\trade_data\CitesTradeData.db

File Edit View Execute Options Help

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Collations (7)

Year	App	Taxon	Class	Impo...	Expo...	Exporter_reported_quantity	Term	Purp...	Source
2000	I	Aquila heliaca	Aves	BE	AE	1.0	live	P	C
2000	I	Aquila heliaca	Aves	BE	AE	2.0	live	T	C
2000	I	Aquila heliaca	Aves	FR	RU	1.0	live	Z	F
2000	I	Aquila heliaca	Aves	PL	HU	50.0	feathers	S	O
2000	I	Aquila heliaca	Aves	PL	RU	2.0	live	Z	F
2000	I	Aquila heliaca	Aves	US	KZ	85.0	feathers	S	W
2000	I	Aquila heliaca	Aves	US	KZ	125.0	specimens	S	W
2000	I	Aquila heliaca	Aves	US	SG	1.0	specimens	S	W
2000	I	Haliaeetus albicilla	Aves	AT	CZ	1.0	bodies	T	W
2000	I	Haliaeetus albicilla	Aves	CZ	RU	2.0	live	B	C
2000	I	Haliaeetus albicilla	Aves	CZ	UA		live	Z	W
2000	I	Haliaeetus albicilla	Aves	DE	DK	1.0	live	T	F
2000	I	Haliaeetus albicilla	Aves	DK	GL	1.0	bodies	E	W
2000	I	Haliaeetus albicilla	Aves	DK	GL	12.0	bodies	S	W
2000	I	Haliaeetus albicilla	Aves	DK	GL		eggs	S	W
2000	I	Haliaeetus albicilla	Aves	DK	GL		specimens	S	W
2000	I	Haliaeetus albicilla	Aves	GB	RU	6.0	live	B	C
2000	I	Haliaeetus albicilla	Aves	GL	DK	1.0	bodies	E	W
2000	I	Haliaeetus albicilla	Aves	IL	NL	2.0	live	N	C
2000	I	Haliaeetus albicilla	Aves	IL	RU	2.0	live	B	C
2000	I	Haliaeetus albicilla	Aves	IL	UA		live	B	W
2000	I	Haliaeetus albicilla	Aves	NL	PL		live	Z	W
2000	I	Haliaeetus albicilla	Aves	RU	KZ	1.0	live	Z	C
2000	I	Haliaeetus albicilla	Aves	RU	KZ		live	Z	C

Time: 3.86 sec 1498853 returned SQLite 3.21.0

清洗数据

目前版本还未完成保存修改功能, 请编辑完后将json代码手动复制到原文件中

载入 JSON 文件: No file chosen

保存 JSON 文件(暂时无法使用):

The screenshot displays the Visual Punk application interface. The left pane shows the JSON code with line numbers 664 to 698. The right pane shows the corresponding tree structure. The JSON data is as follows:

```
664  "export_tgt_info": [  
665  {  
666    "name": "美国",  
667    "coord": [  
668      -97,  
669      38  
670    ]  
671  },  
672  {  
673    "name": "日本",  
674    "coord": [  
675      138,  
676      36  
677    ]  
678  },  
679  {  
680    "name": "瑞士",  
681    "coord": [  
682      8,  
683      47  
684    ]  
685  },  
686  {  
687    "name": "香港特别行政区",  
688    "coord": [  
689      114.1667,  
690      22.25  
691    ]  
692  },  
693  {  
694    "name": "韩国",  
695    "coord": [  
696      127.5,  
697      37  
698    ]  
699  }  
700  ]
```

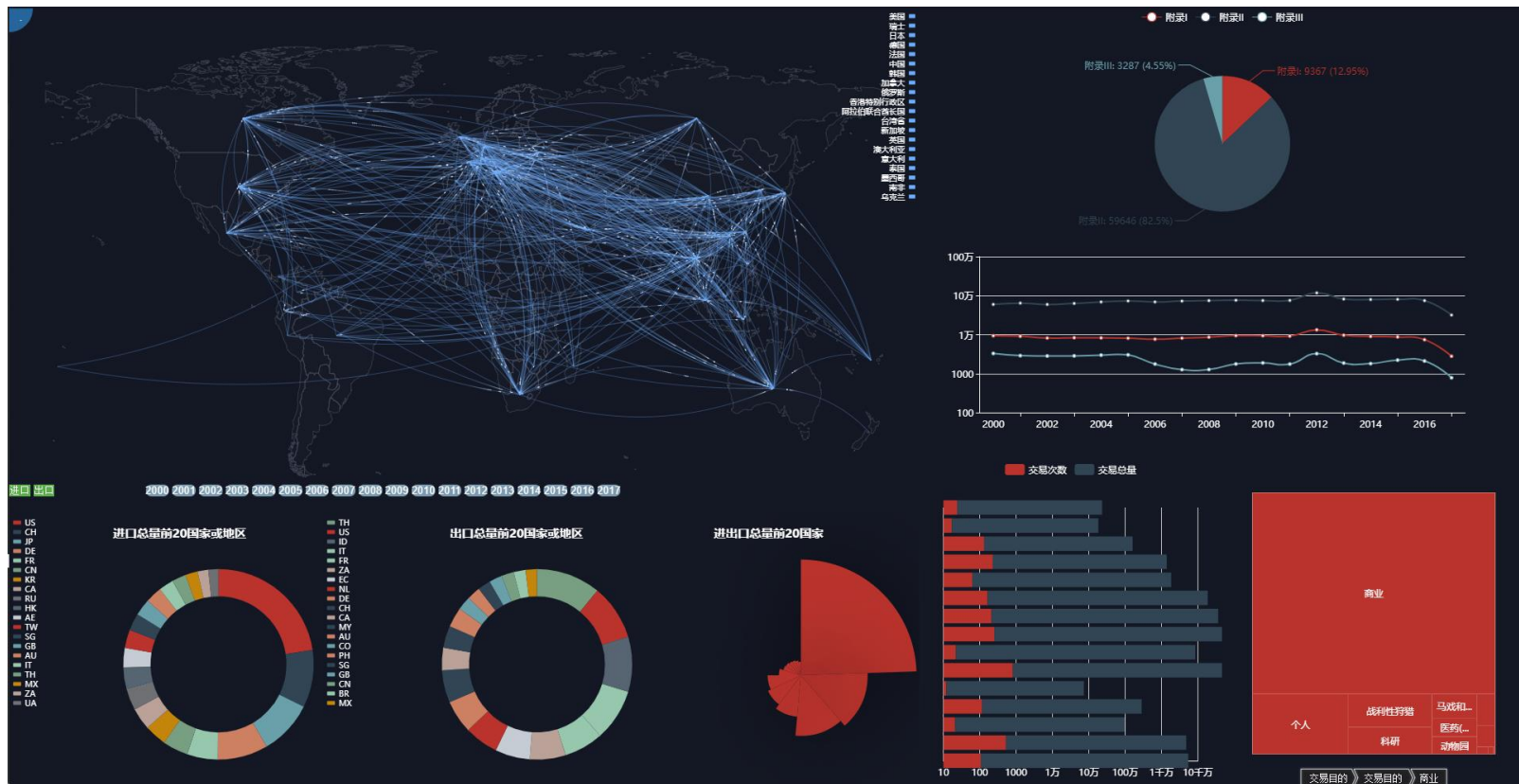
The tree view on the right shows the following structure:

- array [20]
 - 0 {9}
 - name : US
 - num : 7843
 - coord [2]
 - nameCN : 美国
 - export_tgt_info [20]
 - purpose_info [12]
 - I [5]
 - II [5]
 - III [5]
 - 1 {9}
 - 2 {9}
 - 3 {9}
 - 4 {9}
 - 5 {9}
 - 6 {9}
 - 7 {9}
 - 8 {9}
 - 9 {9}

数据选取与视图构建

- + 进出口前20的国家
- + 对于进口国家，会考察每年它们进口的来源、进口的物种种类、交易量以及目的
- + 对于出口国家，会考察每年它们出口的目的地，出口的物种种类、交易量以及目的
- + 全球濒危动物的交易总量

实现效果



最终的结果

- + 濒危动植物交易量有所下降
- + 商业用途与个人用途始终占据主流,商业性狩猎与科研比重有所增加
- + 进口国家大多为欧美发达国家或者人口大国, 中国印度排名上升较快
- + 进出口植物占比较大

项目的不足:

- + 对动植物的知识不足无法分析的更全面
- + 动植物中英文名对照表工作量比较大, 没法更直观的表达数据
- + 数据量较大, 但数据维度较小, 可供分析的面较少



THANKS

感谢大家观看

T h a n k y o u f o r w a t c h i n g