

Cloud Based Address Recognition System

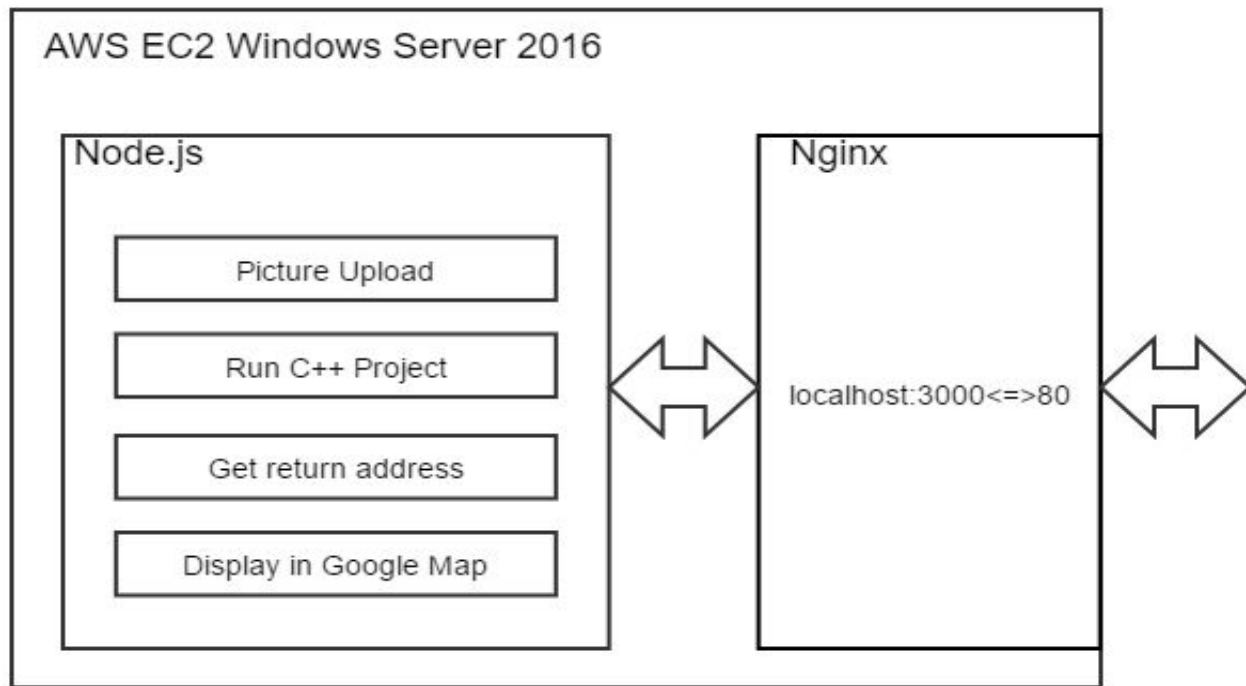
Xin DU 926753861
Zhixuan WU 219831020



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Project Structure



Satellite

Sri Lanka

Mindanao

Map data ©2017 Google, SK telecom, ZENRIN Terms Send feedback 500 km



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Project Structure

AWS EC2

Node.js

```
37 var cmd = 'Release2\\express.exe ' + resolve(req.file.path);
38
39 exec(cmd, function(error, stdout, stderr) {
40   console.log(stdout);
41   res.send(stdout);
42 });
```

Picture Upload

Run C++ Project

Get return address

Display in Google Map

localhost:3000<=>80

Satellite

Sri Lanka

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Project Encoding issue

C++: ANSI

```
F:\Dropbox\AWS\example1\Release2>express.exe F:\Dropbox\AWS\exam  
安徽省 合肥市 包河区
```

```
void fenjian::ShowResult(address Address)  
{  
    wcout.imbue(locale("chs"));  
    if (m_hasAddress)  
    {  
        //wcout << L"found: ";  
        wcout << Address.provinceName << L" ";  
        //if (Address.completeness & address_complete_city)  
        // SetConsoleColor(FOREGROUND_RED, BACKGROUND_BLACK);  
        //else  
        // SetConsoleColor(FOREGROUND_GREEN, BACKGROUND_BLACK);  
    }  
}
```



Project Level Encoding Issue

C++: wcout ANSI --X--> Node.js: UTF8

```
C:\Release3.0>Express C:\Release3.0\pic\test.jpg
鍏堝厠鍐? 鍒? 鍩? 杩? 杞? 瀹? 鍩? 瀹? 鍩?
```

```
1 // C++11 system-independent approach
2 #include <iostream>
3 #include <codecvt>
4 int main() {
5     std::wbuffer_convert<std::codecvt_utf8<wchar_t>> conv_out(std::cout.rdbuf());
6     std::wostream out(&conv_out);
7     out << L"双喜雙喜!" << std::endl;
8 }
```



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System Level Encoding Issue

ec2-34-204-47-168 - ...

3Level123 - Notepad

File Edit Format View Help

```
<root>
  <±±%0ÊÐ>
    %0
    ±±%0
    <ÊÐİ%Çø>
      ÊÐİ%Çø
      <Ŷ«³ÇÇø>
        ³çİÄÇø|
        Ŷ«³Ç
        ³çİÄ
      </Ŷ«³ÇÇø>
```

ec2-34-239-247-115 - ec2-34-239-247-115

3Level123.xml - Notepad

File Edit Format View Help

```
<root>
  <北京市>
    京
    北京
    <市辖区>
      市辖区
      <东城区>
        崇文区
        东城
        崇文
      </东城区>
```

Satellite

Google

System Level Encoding Issue

The image shows two overlapping Windows Settings windows. The background window is titled 'Languages' and shows a list of installed languages: English (United States) and Chinese (Simplified, China). The foreground window is titled 'Region' and shows the 'Administrative' tab, which includes options for 'Welcome screen and new user accounts' and 'Language for non-Unicode programs'. The 'Current language for non-Unicode programs' is set to 'Chinese (Simplified, China)'.

Languages

You can type in any language you add to the list. Windows, apps and websites will appear in the first language in the list that they support

Add a language

- English (United States)
Windows display language
- 中文(中华人民共和国)
Language pack installed

Related settings

Region

Administrative

Welcome screen and new user accounts

View and copy your international settings to the welcome screen, system accounts and new user accounts.

Copy settings...

Language for non-Unicode programs

This setting (system locale) controls the language used when displaying text in programs that do not support Unicode.

Current language for non-Unicode programs:

Chinese (Simplified, China)

Change system locale...

Tuned for Specific image pattern

Index set for the air-tag of a specific Company

Photoed in compared stable way (so can count by proxy)

Pro: Increased accuracy

Con: Hard to fit pic from different source

STO 申通快递 express 经济 快递

上海金山 042

金山包

收件人: 王敏花 15802190563 021-57967253 服务
上海市 金山区 山阳镇山鑫公寓12号401室

寄件人: 孙川 发件人电话: 13750673961

3 3 0 3 9 6 5 9 7 3 5 7 5

签收人: 时间:

STO 申通快递 express 3 3 0 3 9 6 5 9 7 3 5 7 5

收件人: 王敏花 15802190563 021-57967253
上海市 金山区 山阳镇山鑫公寓12号401室

寄件人: 孙川 发件人电话: 13750673961

2015冬季新款韩国代购保暖百搭超大加厚保暖流苏羊绒围巾披肩: 蓝
现货1

huangjunyan1130 共1件 2016-1-4 已验视
0120082

Tuned for Specific image pattern

C:\Windows\system32\cmd.exe

```
Image 1700, 1000620161025192709692_GR3316400380327Crop.jpg start!  
found: 河南省 商丘市  
  
Image 1701, 1000620161025192750043_GR3316385408380Crop.jpg start!  
found: 天津市 市辖区 南开区  
  
Image 1702, 1000620161025192751611_GR33164194708000Crop.jpg start!  
found: 新疆维吾尔自治区 乌鲁木齐市 新市区  
  
Image 1703, 1000620161025192818506_GR3316417293982Crop.jpg start!  
found: 江苏省 无锡市  
found: 江苏省 无锡市 市内  
found: 江苏省 无锡市 市内  
  
Image 1704, 1000620161025194012740_GR3316388999001Crop.jpg start!  
found: 上海市 市辖区 嘉定区  
  
Image 1705, 1000620161025194015833_GR3316419945373Crop.jpg start!  
found: 江苏省 泰州市 姜堰区  
  
Image 1706, 1000620161025194029923_GR3316386203029Crop.jpg start!  
  
Image 1707, 1000620161025194033126_GR3316384544601Crop.jpg start!  
found: 河南省 许昌市 建安区
```

Totally processed 1708 images, and found 1486 addresses!

Good news:

1486/1708 recognised in our image package





Search Google Maps



Tuned for Specific image pattern



(SF) EXPRESS 顺丰速运			
966 184 293 202			
寄方: 东方购物 张文洁 02144444444		原寄地 021	
收方: 上海市青浦区双棒路218号 顺丰 张三 02133333 13671690867		目的地 021	
托寄物信息: 包裹		业务类型	
件数	托寄物数量	实际重量	计费重量
3	1		
付款方式: 寄付 0000000011		寄方签名:	收件员:
第三方地区:		寄件日期:	收件日期:
附加服务:		收方签名:	派件员:
其它费用: 0.0元 燃油附加费:		派件日期:	备注栏:
寄方: 上海 上海市 黄浦区 上海市黄浦区蒙自路763号11F1102室 东方购物 张文洁 02144444444			
收方: 上海市青浦区双棒路218号 顺丰 张三 02133333333 13671690867			
		费用合计:	
966 184 293 202		付款方式: 寄付	

Bad news:

For non-target image source

Pic with small resolution

Different abbreviation tradition

Different Front Tradition

		快递单号
3 4 6 4 8 7 2 8 9 4		发件圆通网点必填
收件人姓名 代购中国 123456(收)		
单位名称		
收件地址 省 上海市 闵行 区/县 乡/镇		
颀兴东路999弄致善楼6楼		
联系电话(非常重要) 021-61267025		邮政编码 201108
服务与费用		

Sri Lanka

Tuned for Specific image pattern

Oooops

2/12 make sense to the program

```
C:\Windows\system32\cmd.exe
Please input the image folder:
C:\Users\isaac\Desktop\jpg

Image 0, 1ghqa31evnp.jpg start!

Image 1, a5c27d1ed21b0ef43ddb0bf2d5c451da81cb3e6e.jpg start!

Image 2, e01726a4462309f7afd1da39750e0cf3d7cad638.jpg start!
found: 湖南省 娄底市

Image 3, fd039245d688d43ffdc5e9f9751ed21b0ef43b48.jpg start!

Image 4, jm800.jpg start!
found: 吉林省 长春市 南关区

Image 5, t5.jpg start!

Image 6, t6.jpg start!

Image 7, test1.jpg start!

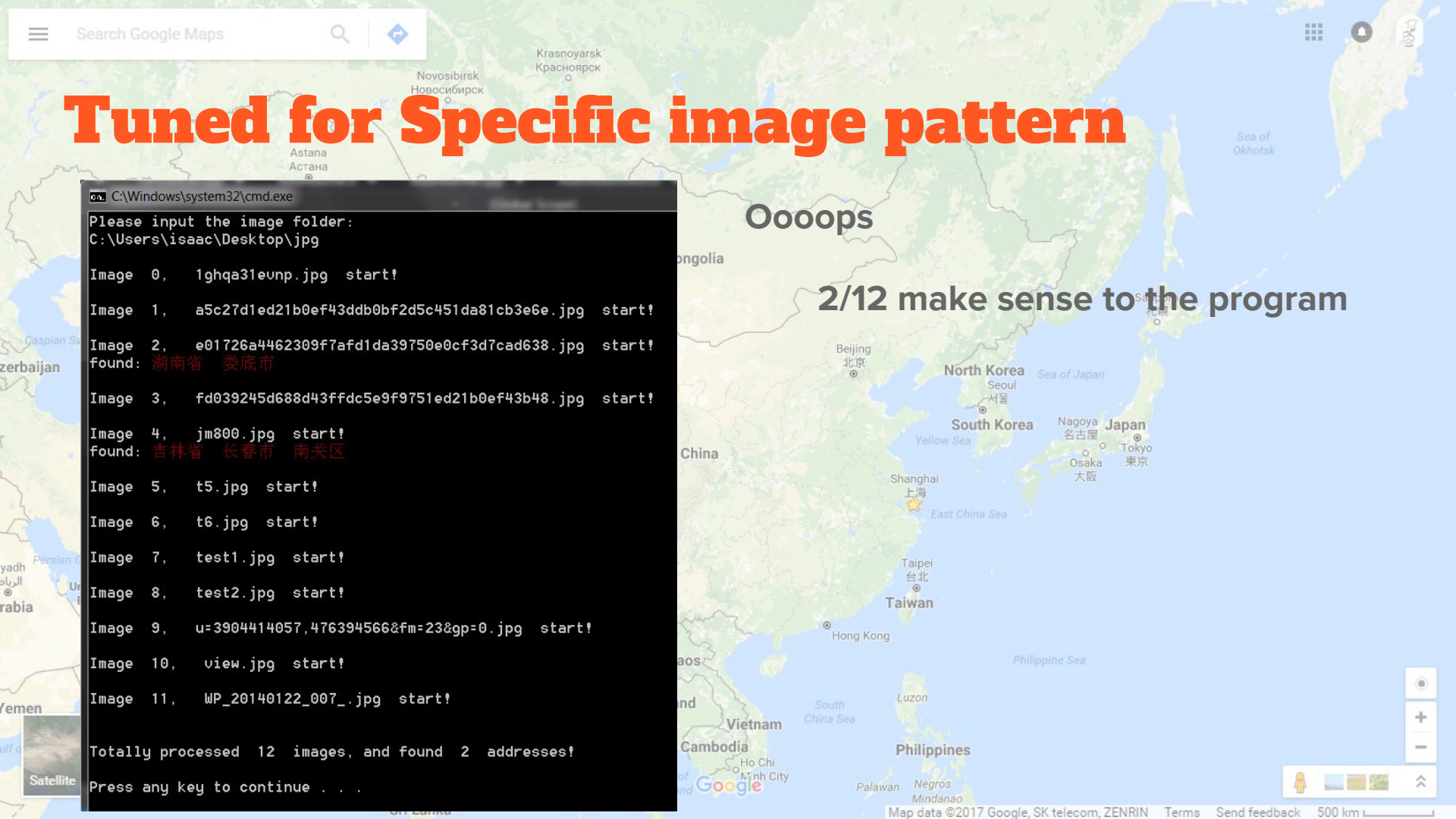
Image 8, test2.jpg start!

Image 9, u=3904414057,476394566&fm=23&gp=0.jpg start!

Image 10, view.jpg start!

Image 11, WP_20140122_007_.jpg start!

Totally processed 12 images, and found 2 addresses!
Press any key to continue . . .
```





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Sth

About devop

Required lib

About dll

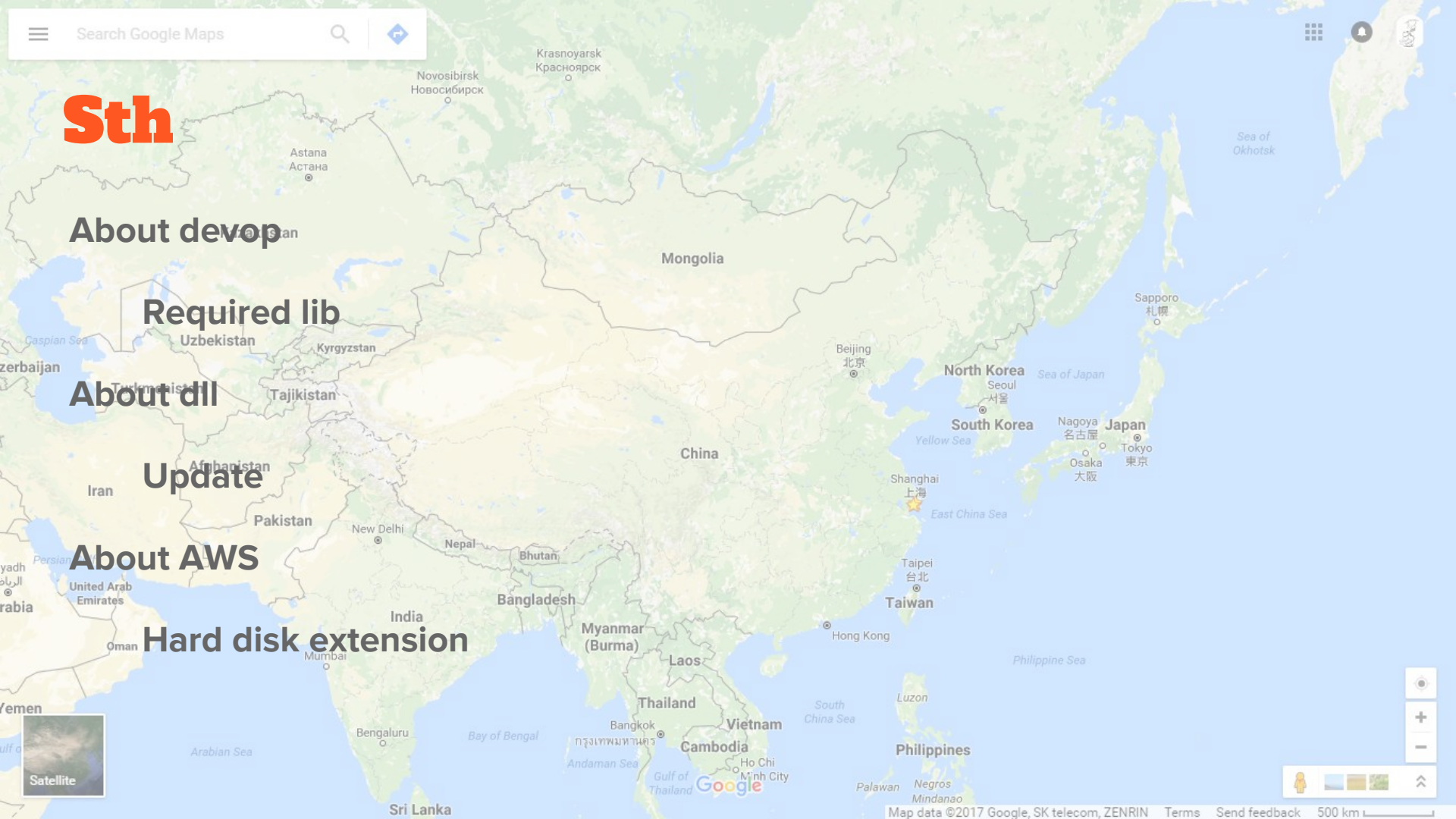
Update

About AWS

Hard disk extension



Satellite





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Question?



Satellite

