

```
10 WriteLn 'Hi Satellite';  
20 Goto 10;  
30 Return to Sender();
```



Geo API

mapbox 10

EKON 20





Agenda EKON

- Get API Key (access token) of mapbox
- What's important in REST Calls?
- The Mapbox Static API
- Http Get & TCP Sockets
- 4-5 Use Cases



Get a Key first

- All you need to start using Mapbox is an access token:
it's a short code that lets you use your Mapbox account's capabilities or state.
- You can use the same access token with all interactive mapping libraries, Python, Pascal and JavaScript SDKs, and even directly against the REST APIs.

<https://www.mapbox.com/developers/>



Important for REST Calls

Check HTTPS with Http Get()

- String Stream or Memory Stream ?
- UTF8ToString();
- Check Null or empty Values
- GeoJSON as String
- Try except / finally pattern

demo: 711_geo_satellite_mapbox_ekon20.txt



Menus & Mouse are gone

Iterator Disable Structure

with MaxForm1.MainMenu1 do

for it:= 0 to items.count-1 do begin

TMenuItem(items).items[it].enabled:= false;

writeln(TMenuItem(items).items[it].name);

End;

http://www.gtro.com/delphi/parser_e.php

Demo: 547_Win10_Develop_4_BASTA_EKON19.TXT



Intro: Static API

- Static API (classic)
 - Get stand-alone images from classic styles to embed on a form with the option to add vector data as overlays.
- Demo: Static, Geocoding, Distance, Satellite
- 711_geo_satellite_mapbox_ekon20.txt
 - 692_GEO_fservermain33_EKON20.pas
 - 692_GEOimageserv_fClient33_EKON20.pas



HTTP versus TCP

TIdHTTPServer does not trigger an OnCommand... event until it has read a complete HTTP request header from the client.

A TIdTCPServer is not reading any requests at all!

A web browser would communicate with a TIdTCPServer using the HTTP protocol, which only contains lines of text in its request headers.

Thread: Indy https post returns HTTP/1.0 500 Error - help

<https://forums.embarcadero.com/thread.jspa?threadID=112596>

Use Case to Develop



The screenshot displays a development environment for a PascalScript-based application. The main window, titled 'maXbox4 ScriptStudio 692_imageserv_fClient33_EKON20.pas', shows a script for a TCP image client. The script includes comments and code for connecting to a server, downloading images, and displaying them. A 'TCP SAT_Image Client maXbox' dialog box is open, showing a list of available images and a preview of a selected image. A 'Server status' window in the background shows a log of server activity, including file transfers and connections. The status bar at the bottom indicates the application is running on a 64-bit system (mX4) with a runtime of 0:0:1.269 and a memory load of 29%.

```
//writeln('assign')
try
with IdTCPClient do
// try
if connected then
//except
//end;
//writeln('before')
Host := edtServer;
Port := StrToInt(edtPort);
//host:= '127.0.0.1';
//port:= 8090;
//writeln('before')
Connect(1500);
memo2.lines.add('first push back: '+ReadLn(LF,500,0));
TfrmClientLoadItems(idtcpclient.ReadLn(LF,500,2500));
memo2.lines.add('list back: '+ReadLn(LF,500,2500));
Disconnect;
end;
```

maXbox4 C:\maXbox\EKON_BASTA\EKON20\EKON20_Scripts\692_imageserv_fClient33_EKON20.pas Compiled: 05/10/2016 14:09:08 Mem: 29%

192.168.56.1
mX4 executed: 05/10/2016 14:09:08 Runtime: 0:0:1.269 Memload: 29% use
PascalScript maXbox4 - RemObjects & SynEdit
assign IP2: 192.168.56.1
Exception: Connection Closed Gracefully.
Ver: 4.2.4.60 (424). Work Dir: C:\maXbox\EKON_BASTA\EKON20\EKON20_Scripts
Ver: 4.2.4.60 (424). Work Dir: C:\maXbox\EKON_BASTA\EKON20\EKON20_Scripts
Ver: 4.2.4.60 (424). Work Dir: C:\maXbox\EKON_BASTA\EKON20\EKON20_Scripts
Ver: 4.2.4.60 (424). Work Dir: C:\maXbox\EKON_BASTA\EKON20\EKON20_Scripts



Combine with Weather

- Check Services as Backup (ex. Geolocation)
- Call Contracts in an account (Access tokens)
- Call Services First CSF (map comp or service)

```
MyPublicIP:= GetHTM('http://ipinfo.io/ip');
```

```
function GetGeoWeather(const location: string;  
                        const UrlRestAPI: string): string;
```

Demo: 640_rest_weather_report2.txt



Finally you can test with

- Duplicated code in app & browser
- UWP Coding standards & guidelines
- Unit tests for Code Coverage
- Wine Reference or RealVNC on Android
- UISpy to find Components & Controls
- Comments & Compiler Directives

demo: 393_QRCode3.TXT

EKON 20



mapbox Developer Links



- ModelMaker - maXbox - mapbox:
<http://www.modelmakertools.com/>
<https://github.com/maxkleiner/maXbox3/releases>
<https://www.mapbox.com/studio/>

Mapbox Artikel in Entwickler

<http://www.softwareschule.ch/download/mapbox.pdf>

Open Weather Map Tutor:

http://www.softwareschule.ch/download/maxbox_starter40.pdf

Guideline → <https://www.mapbox.com/api-documentation/>



May the source be with you!

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maxbox