

Tylko grzeczni programiści
dostaną odpowiedź z serwisu REST,
czyli opowieść o tym,
co się dzieje gdy Święty Mikołaj
sprawdza pogodę dwa razy...



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15.12.2023 część 1
18.12.2023 część 2

BSC
POLSKA

grudniowe seminarium online

Mikołaj omówi następujące kwestie:

- ▶ DarkMode dla VCL i FMX
- ▶ Ustawianie stylów wizualnych w trakcie działania aplikacji
- ▶ Dostosowanie do ustawień systemu
- ▶ Detekcja schematu kolorów w Windows
- ▶ Poprawka w http/REST Client dla Delphi 12
- ▶ RESTdebugger przekompilowany
- ▶ Pogoda dla FMX i VCL - asynchr. ładowanie grafiki
- ▶ Na deser animacje w Skia :)

Windows – VCL

- ▶ style VCL: ładowane z pliku lub osadzane w zasobach
- ▶ komunikat w Windows WM_SETTINGCHANGE albo TApplicationEvents i OnSettingChange
- ▶ detekcja schematu koloru – rejestr
- ▶ DEMO: VCLDarkModeDemo
- ▶ czasem trzeba ustawić własne kolory
- ▶ warto zapisać ustawienie użytkownika :)

Mobile/Windows – FMX

- ▶ FMX style trzyma w TStyleBook'ach
- ▶ TMessageManager.DefaultManager.SubscribeToMessage
(TSystemAppearanceChangedMessage,
SystemAppearanceChangedListener);
- ▶ dla Windows – własne
IFMXSystemAppearanceService
- ▶ detekcja schematu koloru – rejestr
- ▶ DEMO: (FMX)DarkModeDemo
- ▶ znów czasem trzeba ustawić własne kolory
- ▶ jak zapisać ustawienia użytkownika bez rejestracji?

RESTdebugger i TURLEncoding w D12

- ▶ coś złego się dzieje, gdy PL literki w zapytaniu
- ▶ DEMO: RESTdebuggerD12.exe
- ▶ System.NetEncoding.pas
TURLEncoding.EncodeQuery
TEncodeOption.EncodePercent?
- ▶ DEMO: RESTdebugger.exe po poprawkach

RESTdebugger v12

The screenshot shows the REST Debugger v12 application window. At the top, there's a logo for 'RESTDebugger' and the text 'REST Debugger 12.0' and 'Embarcadero Technologies'. Below the title bar, there are four tabs: 'Request', 'Parameters', 'Authentication', and 'Connection'. The 'Request' tab is selected.

In the 'Request' tab, the 'Method' dropdown is set to 'GET' and the 'URL' input field contains 'http://api.openweathermap.org'. The 'Content-Type' dropdown is empty. There's also a 'Custom body:' text area which is currently empty.

To the right of the request fields, there are several buttons: 'Send Request', 'New Request', 'Load Request', 'Save Request', and 'Copy Components'.

Below the request section, the 'Response' tab is selected. It displays the following JSON response:

```
http://api.openweathermap.org/data/2.5/forecast?q=Krak%2C3%25B3w&units=metric&APPID=d5c8e4ad82d1d15a66169ccca0164f89&lang=pl
404 : Not Found - 40 bytes of data returned. Timing: Pre: 0ms - Exec: 125ms - Post: 0ms - Total: 125ms
```

Under the response, there are three tabs: 'Headers', 'Body', and 'Tabular Data'. The 'Headers' tab is selected and shows the following header information:

```
Connection=keep-alive
Date=Fri, 15 Dec 2023 16:28:56 GMT
Content-Length=40
Content-Type=application/json; charset=utf-8
Server=openrestry
X-Cache-Key=/data/2.5/forecast?APPID=d5c8e4ad82d1d15a66169ccca0164f89&lang=pl&q=krak%2C3%25B3w&units=metric
Access-Control-Allow-Origin=
Access-Control-Allow-Credentials=true
Access-Control-Allow-Methods=GET, POST
```

At the bottom left, it says 'Proxy-server disabled'. On the far right, there are two small icons.

RESTdebugger v12 – parametr

The screenshot shows the REST Debugger application interface. In the Request tab, the URL is `http://data.2.5/forecast?q=(q)&units=metric&APPID=d5c8e4ad82d1d15a66169ccca0164f89&lang=pl`. The parameter `q` is highlighted in blue. To the right, there are buttons for Add, Edit, Delete, Send Request, New Request, Load Request, Save Request, and Copy Components. In the Response tab, the status is 404: Not Found - 40 bytes of data returned. The response headers include Connection, Date, Content-Length, Content-Type, Server, X-Cache-Key, Access-Control-Allow-Origin, Access-Control-Allow-Credentials, and Access-Control-Allow-Methods.

REST Debugger 12.0
Embarcadero Technologies

Request

Request Parameters Connection

Resource:
`http://data.2.5/forecast?q=(q)&units=metric&APPID=d5c8e4ad82d1d15a66169ccca0164f89&lang=pl`

Request Parameters:
[URL-SEGMENT / E] `q=Kraków`

Add Edit Delete Send Request New Request Load Request Save Request Copy Components

Response

`http://api.openweathermap.org/data/2.5/forecast?q=Krak%25C3%25B3w&units=metric&APPID=d5c8e4ad82d1d15a66169ccca0164f89&lang=pl`

404 : Not Found - 40 bytes of data returned. Timing: Pre: 0ms - Exec: 125ms - Post: 0ms - Total: 125ms

Headers Body Tabular Data

Connection=keep-alive
Date=Fri, 15 Dec 2023 16:28:56 GMT
Content-Length=40
Content-Type=application/json; charset=utf-8
Server=openrestry
X-Cache-Key=/data/2.5/forecast?APPID=d5c8e4ad82d1d15a66169ccca0164f89&lang=pl&q=krak%25C3%25B3w&units=metric
Access-Control-Allow-Origin=*
Access-Control-Allow-Credentials=true
Access-Control-Allow-Methods=GET, POST

Proxy-server disabled

RESTdebugger v12 poprawka

The screenshot shows the REST Debugger application window. In the Request tab, the URL is set to `http://api.openweathermap.org/data/2.5/weather?q=Krak%C3%B3w&units=metric&APPID=d5c8e4ad82d1d15a66169ccca0164f89&lang=pl`. A red circle highlights the parameter `q=Krak%C3%B3w` in the Request Parameters input field. To the right of the input field are buttons for Add, Edit, Delete, Send Request, New Request, Load Request, Save Request, and Copy Components. In the Response tab, the status is shown as 200 : OK - 16124 bytes of data returned. The Headers section displays standard HTTP headers like Connection, Date, Content-Length, Content-Type, Server, X-Cache-Key, Access-Control-Allow-Origin, Access-Control-Allow-Credentials, and Access-Control-Allow-Methods. The Body section is currently empty.

REST Debugger 12.0
Embarcadero Technologies

Request

Request Parameters:

[URL-SEGMENT / E] q=Kraków

Send Request

New Request

Edit

Delete

Save Request

Copy Components

Response

http://api.openweathermap.org/data/2.5/weather?q=Krak%C3%B3w&units=metric&APPID=d5c8e4ad82d1d15a66169ccca0164f89&lang=pl

200 : OK - 16124 bytes of data returned. Timings: Pre: 0ms - Exec: 94ms - Post: 0ms - Total: 94ms

Headers Body Tabular Data

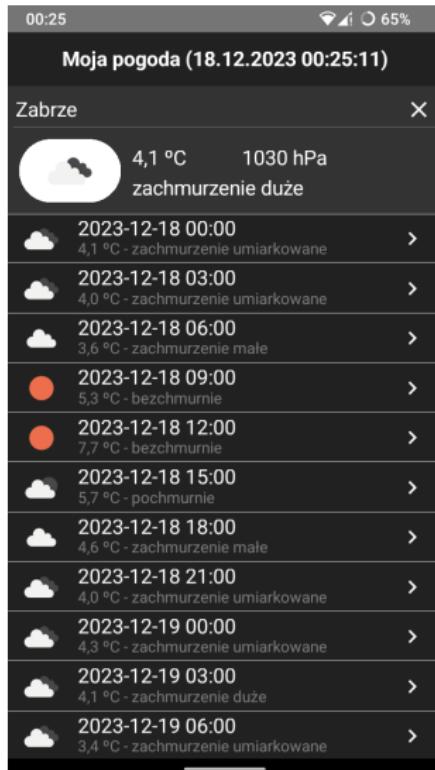
Connection=keep-alive
Date=Fri, 15 Dec 2023 16:27:53 GMT
Content-Length=16124
Content-Type=application/json; charset=utf-8
Server=openresty
X-Cache-Key=/data/2.5/weather?APPID=d5c8e4ad82d1d15a66169ccca0164f89&lang=pl&q=krak%C3%B3w&units=metric
Access-Control-Allow-Origin=*
Access-Control-Allow-Credentials=true
Access-Control-Allow-Methods=GET, POST

Proxy-server disabled

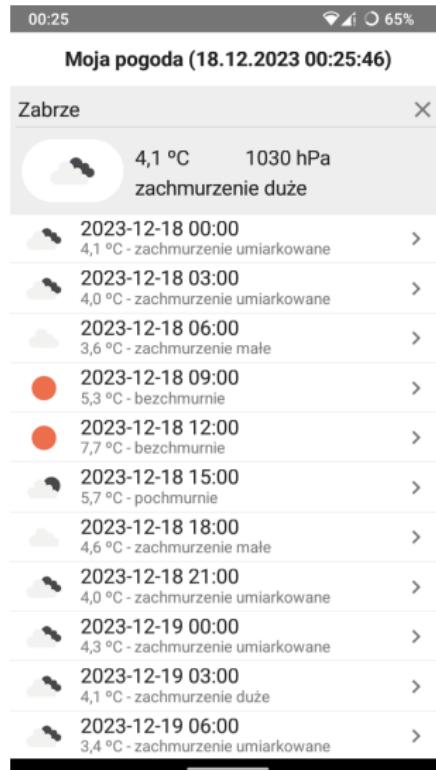
Pogoda w FMX

- ▶ LoadBitmapHttpFromURL
- ▶ DEMO: MojaPogoda
- ▶ poprawiony REST!

MojaPogoda – Android



(a) Android Dark

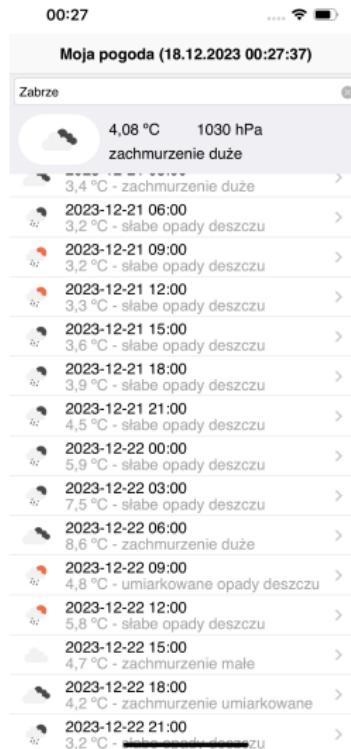


(b) Android Light

MojaPogoda – iOS

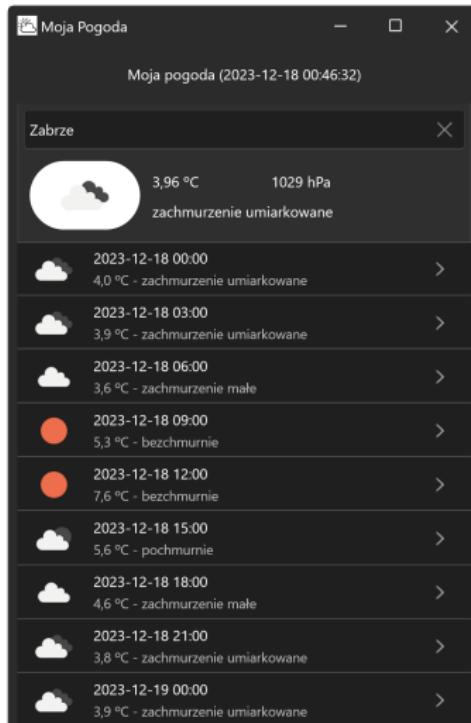


(c) iOS Dark

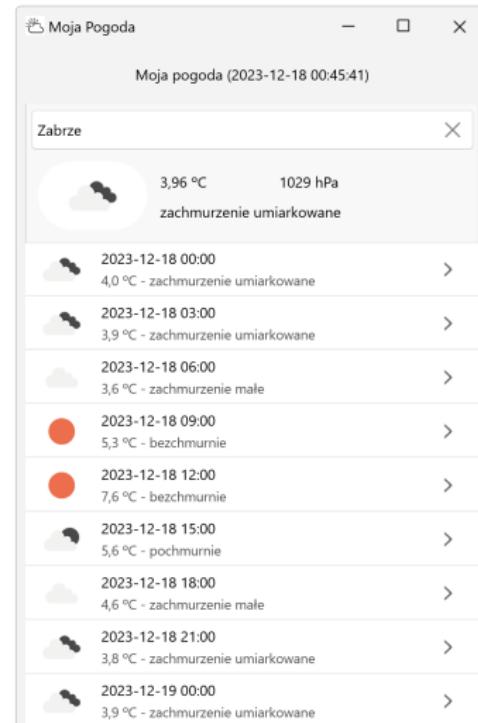


(d) iOS Light

MojaPogoda – Windows



(e) Windows Dark

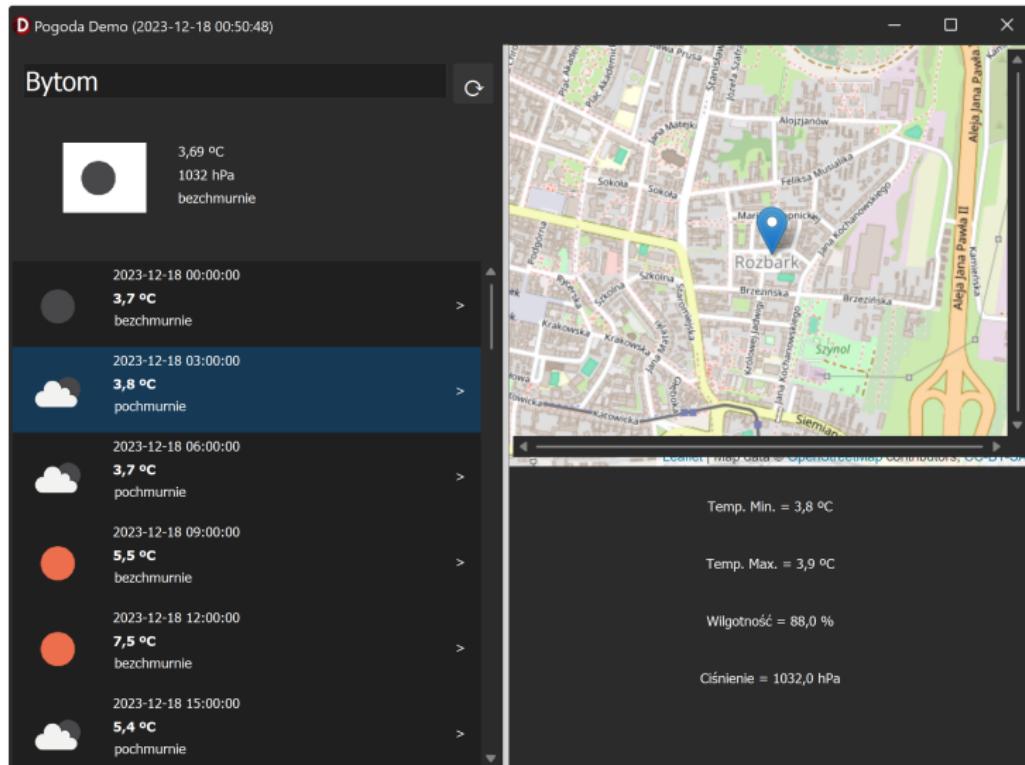


(f) Windows Light

Pogoda w VCL

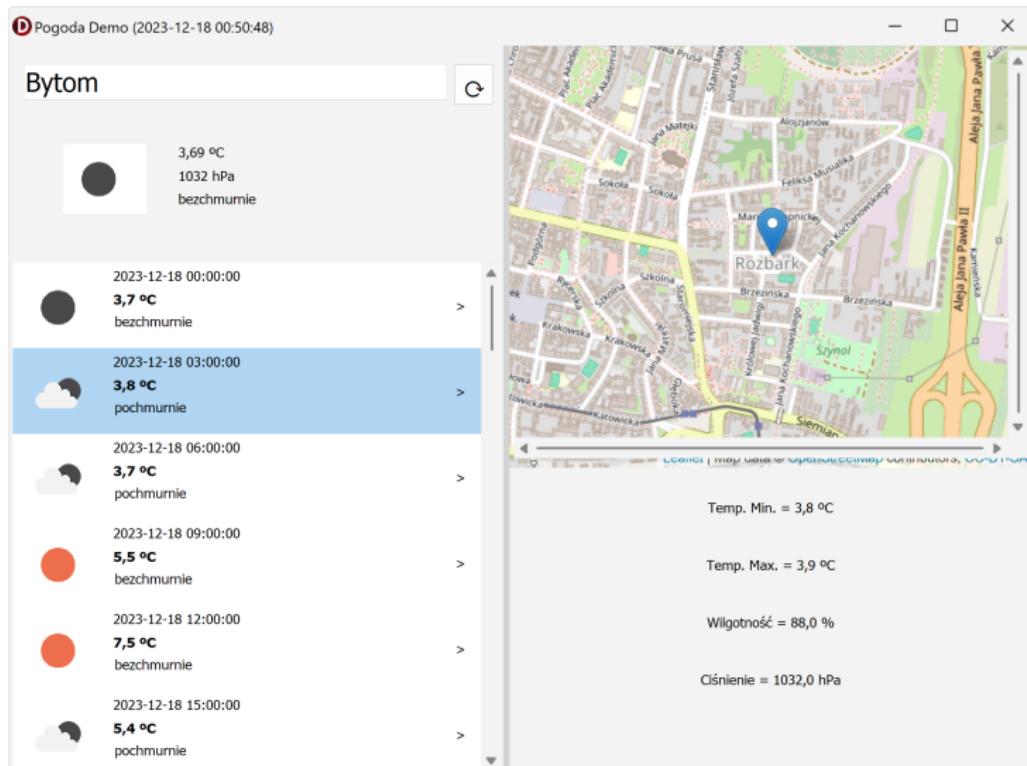
- ▶ TControlList, TEDGEBrowser – inicjalizacja
- ▶ VclLoadImageHttpFromURL i
TImageLoadURLExtension
- ▶ DEMO: PogodaDemo
- ▶ poprawiony REST!

PogodaDemo – Windows



(g) Windows Dark

PogodaDemo – Windows



(h) Windows Light

Skia

- ▶ TskAnimatedImage
- ▶ TskSVG
- ▶ TskLabel
- ▶ TskAnimatedPaintBox
- ▶ DEMO: SkiaDemo

Życzenia

Wesołych Świąt Bożego Narodzenia



Szczęśliwego Nowego 2024 Roku!

Dziękuję za uwagę

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