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# Delphi Academy

Dicas rápidas, truques e técnicas



## RAD Server Projeto Exemplo Parte #1

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# AGENDA

- Class Helpers e Record Helpers
- TCustomJSONDataSetAdapter
- DataSet JSON Class Helper
- Demos

# CLASS HELPERS E RECORD HELPERS

- [http://docwiki.embarcadero.com/RADStudio/Tokyo/en/Class\\_and\\_Record\\_Helpers\\_\(Delphi\)](http://docwiki.embarcadero.com/RADStudio/Tokyo/en/Class_and_Record_Helpers_(Delphi))
- <https://www.thoughtco.com/understanding-delphi-class-and-record-helpers-1058281>
- <https://www.thoughtco.com/record-helpers-for-sets-1058204>
- <https://theroadtodelphi.com/2012/09/05/exploring-delphi-xe3-record-helpers-for-simple-types-system-sysutils-tstringhelper/>
- <https://github.com/colinj/TDateTimeHelper>

```
type
  identifierName = class|record helper [(ancestor list)] for TypeIdentifierName
    memberList
  end;
```

# CLASS HELPERS E RECORD HELPERS

- System.SysUtils – TStringHelper = record helper for Strings
- System.Classes – TUInt32Helper = record helper for UInt32
- System.SyncObjs – TCriticalSectionHelper = record helper for TRTLCriticalSection
- System.SyncObjs – TConditionVariableHelper = record helper for TRTLConditionVariable
- System.Mac.CFUtils – CFGGregorianCalendarHelper = record helper for CFGGregorianCalendar
- System.SysUtils – TGUIDHelper = record helper for TGUID
- System – TSingleHelper = record helper for Single
- System – TDoubleHelper = record helper for Double
- System – TExtendedHelper = record helper for Extended

# TCustomJSONDataSetAdapter

- <http://docwiki.embarcadero.com/Libraries/Tokyo/en/REST.Response.Adapter.TCustomJSONDataSetAdapter>

```
procedure TDataSetJSONHelper.JsonToDataset(aJSON: TJSONObject; aDataset: TDataSet);  
var  
    vConv : TCustomJSONDataSetAdapter;  
begin  
    vConv := TCustomJSONDataSetAdapter.Create(Nil);  
    try  
        vConv.Dataset := aDataset;  
        vConv.UpdateDataSet(aJSON);  
    finally  
        vConv.Free;  
    end;  
end;
```

# DATASET JSON CLASS HELPER

- Objetivos
  - Exportar DataSet como JSON
  - Insert / Update a partir de um JSON

```
TDataSetJSONHelper = class helper for TDataSet
private
    procedure JsonToDataset(aJSON: TJSONObject; aDataset: TDataSet);
public
    function AsJSONArray: string;
    function AsJSONStream: TStream;
    procedure InsertFromJSON(aJSON: TJSONObject);
    procedure UpdateFromJSON(aJSON: TJSONObject);
end;
```

DEMOS

# RECURSOS ADICIONAIS – VÍDEOS/WEBINARS

- RAD Server e Beacon Fence no *Saitobaru Museum*
  - <https://www.youtube.com/watch?v=fdOt9-K8oTQ>
- **RAD Server**, The Perfect Back-end for your Apps
  - <https://youtu.be/HY0JRJPvjsU>
- **Beyond The Beacon Fence**
  - [https://youtu.be/1\\_cWnDmvxJk](https://youtu.be/1_cWnDmvxJk)
- **Beacon Fencing** con RAD Studio, Delphi y C++Builder
  - <https://youtu.be/bJG4UEjuMeM>
- **ThingConnect** Devices
  - <https://youtu.be/tQIYAlvfpPQ>



# RECURSOS ADICIONAIS – VÍDEOS/WEBINARS

- **IoT em Ação** – Construindo uma moderna aplicação para hospitais ou clínicas
  - <https://youtu.be/rC97QGq3lWo>
- **RAD Server Webinars**
  - <https://goo.gl/oPujRg>
- **Mais sobre RAD Server**
  - [https://www.youtube.com/results?search\\_query=rad+server+embarcadero](https://www.youtube.com/results?search_query=rad+server+embarcadero)

# RECURSOS ADICIONAIS – CONTEÚDO TÉCNICO

- REST Endpoint Publishing: <https://goo.gl/H8yM9l>
- IoT Edgeware: <https://goo.gl/rO2528>
- ThingConnect IoT Device Components
  - [http://docwiki.embarcadero.com/RADStudio/Berlin/en/ThingPoints\\_Overview](http://docwiki.embarcadero.com/RADStudio/Berlin/en/ThingPoints_Overview)
  - <http://docwiki.embarcadero.com/IoT/en/ThingConnect>
  - [http://docwiki.embarcadero.com/IoT/en/ThingConnect\\_Devices](http://docwiki.embarcadero.com/IoT/en/ThingConnect_Devices)
- Para cada componente **IoT** instalado através do **GetIt**, você pode encontrar exemplos navegando para  
*C:\Users\Public\Documents\Embarcadero\Studio\19.0\Samples\Internet of Things\Object Pascal\Thing Connect*

# RECURSOS ADICIONAIS – CONTEÚDO TÉCNICO

## ■ Location Tracking

- <http://docwiki.embarcadero.com/loT/en/BeaconFence>
- [http://docwiki.embarcadero.com/loT/en/Using BeaconFence](http://docwiki.embarcadero.com/loT/en/Using_BeaconFence)
- <https://community.embarcadero.com/blogs/entry/beaconfence-and-beacons-tips-from-our-development-team>

- Depois de instalar o pacote do **BeaconFence** através do GetIt, você pode encontrar exemplos de projetos aqui:

*C:\Users\Public\Documents\ Embarcadero\Studio\19.0\Samples\Internet of Things\Object Pascal\Beacon Fence*

# OBRIGADO!

## Perguntas?

Você pode me encontrar em:  
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