



## Como Migrar seu Datasnap DCOM para Rest

Fabio Borges dos Santos

Da sala de reunião à vida real

Embarcadero Conference 2019

Para perguntas e avaliação da palestra utilizem o ID: 25

# Fabio Borges dos Santos

## Formação:

- Tecnólogo em Informática
- Especialista em Teleinformática e Redes de Computadores e Engenharia e Qualidade de Software

## Atuação:



Analista de Sistemas na **AQUASOFT**

# O que você verá nesta palestra?

- **Datasnap**
- **Tópicos sobre migração**
- **Roteiro de conversão**
- **Dicas**

# Datasnap

- **Delphi 3**
  - MIDAS
  - Microsoft DCOM
- **Delphi 6**
  - Passa a se chamar Datasnap
- **Delphi 2009**
  - Passa a utilizar TCP
- **Delphi 2010**
  - Rest

# Projetos antigos e migração

- Projetos iniciados a muito tempo
- Manutenção e evolução ao longo deste tempo
- A hora da virada

# Passos para migrar o Datasnap DCOM

- Trazer o DCOM para a versão mais nova do Delphi

```
type
  TRDM = class (TRemoteDataModule, IRDM)
    conEMPLOYEE: TSQLConnection;
    qryEmployee: TSQLQuery;
    dspEmployee: TDataSetProvider;
  private
    { Private declarations }
  protected
    class procedure UpdateRegistry(Register: Boolean; const ClassID, ProgID: string) override;
    function Echo(const Str: WideString): WideString; safecall;
  public
    { Public declarations }
  end;
```

# Passos para migrar o Datasnap DCOM

- Trazer o DCOM para a versão mais nova do Delphi

```
type
  TRDM = class(TRemoteDataModule, IRDM)
    dspEmployee: TDataSetProvider;
    fdConnection: TFDConnection;
    qryEmployee: TFDQuery;
  public
    function Echo(const Str: WideString): WideString; safecall;
  end;
```

# Passos para migrar o Datasnap DCOM

- Trazer o DCOM para a versão mais nova do Delphi

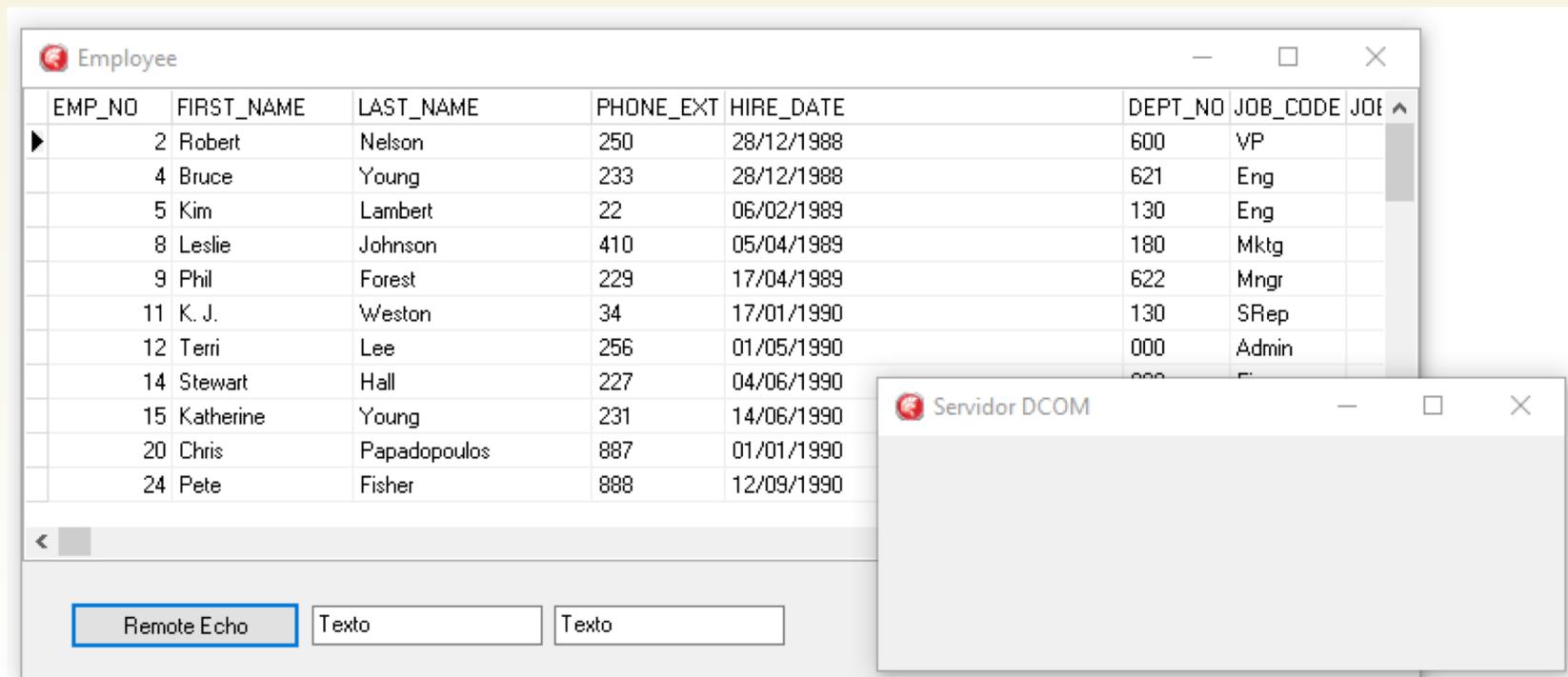
```
cmd Selecionar Administrador: C:\Windows\system32\cmd.exe
      22 arquivo(s)      4.958.998 bytes
      2 pasta(s)    64.389.550.080 bytes disponíveis

C:\EC2019\DCOM\Servidor>Servidor.exe /regserver

C:\EC2019\DCOM\Servidor>
```

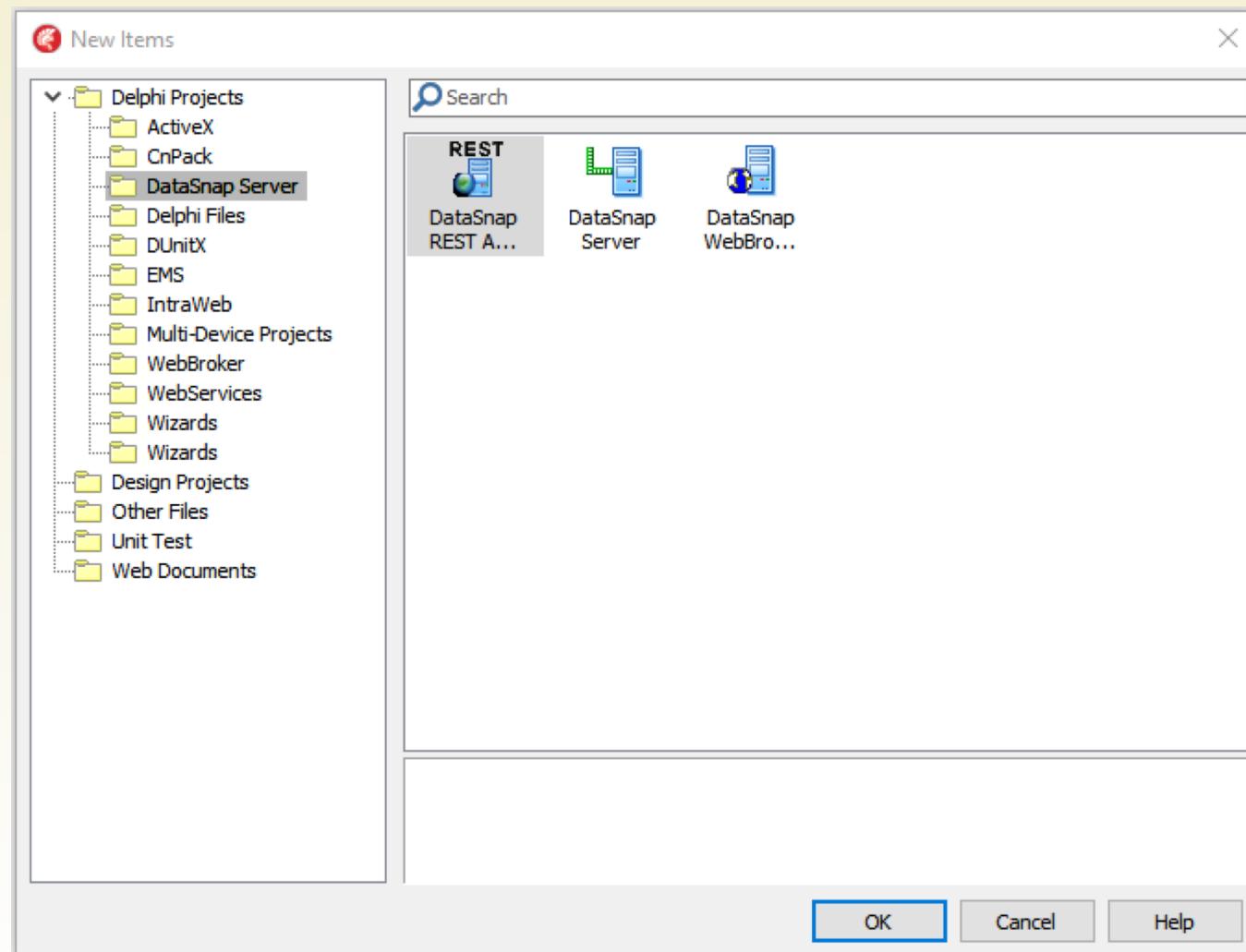
# Trazer o DCOM para a versão mais nova do Delphi

- Possibilidade de entender as dependências do projeto.
- Efetuar melhorias pontuais.

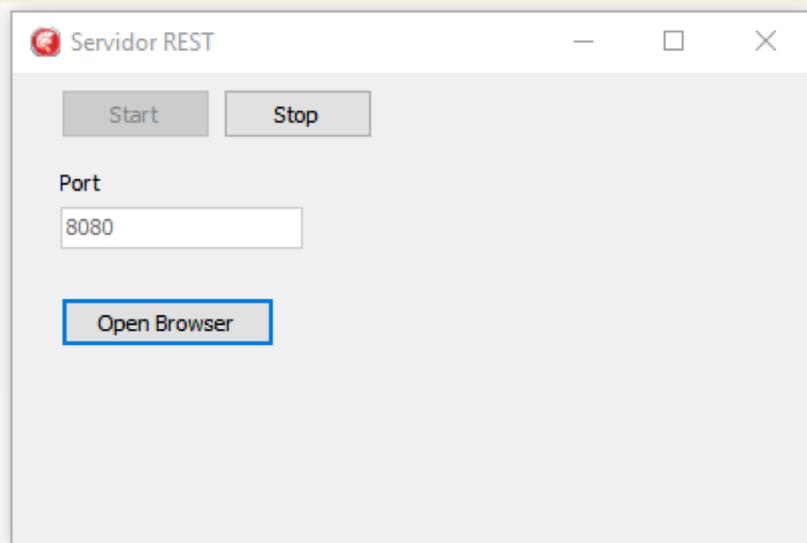


# Iniciar um novo projeto utilizando Rest

- File > New > Other



# Iniciar um novo projeto utilizando Rest



```
unit uSM;

interface

uses System.SysUtils, System.Classes, System.Json,
      Datasnap.DSServer, Datasnap.DSAuth, DataSnap.DSProviderDataModuleAdapter;

type
{$METHODINFO ON}
  TServerMethods1 = class(TDataModule)
private
  { Private declarations }
public
  { Public declarations }
    function EchoString(Value: string): string;
    function ReverseString(Value: string): string;
  end;
{$METHODINFO OFF}
```

# Iniciar um novo projeto utilizando Rest

```
1 unit uRDM;
2
3 {$WARN SYMBOL_PLATFORM OFF}
4
5 interface
6
7 uses
8   Windows, Messages, SysUtils, Classes, ComServ, ComObj, VCLCom, DataBkr,
9   DBClient, StdVcl, DB, SqlExpr, FMTBcd,
10  Provider, FireDAC.Stan.Intf, FireDAC.Stan.Option, FireDAC.Stan.Error,
11  FireDAC.UI.Intf, FireDAC.Stan.Def, FireDAC.Stan.Pool,
12  FireDAC.Stan.Async, FireDAC.Phys, FireDAC.Phys.FB,
13  FireDAC.Stan.Param, FireDAC.DatS, FireDAC.DApt,
14  FireDAC.Comp.DataSet, FireDAC.Comp.Client, FireDAC.Phys.Intf,
15  FireDAC.Phys.FBDef, FireDAC.DApt.Intf;
16
17 type
18 {$METHODINFO ON}
19 TRDM = class(TDataModule)
20   dspEmployee: TDataSetProvider;
21   fdConnection: TFDConection;
22   qryEmployee: TFDQuery;
23 public
24   function Echo(const Str: WideString): WideString; safecall;
25 end;
26
27 {$METHODINFO OFF}
```

```
type
  TRDM = class(TRemoteDataModule, IRDM)
    dspEmployee: TDataSetProvider;
    fdConnection: TFDConection;
    qryEmployee: TFDQuery;
  public
    function Echo(const Str: WideString): WideString; safecall;
  end;
```

```
initialization
  TComponentFactory.Create(ComServer, TRDM,
    Class_RDM, ciMultiInstance, tmApartment);
```

# Iniciar um novo projeto utilizando Rest

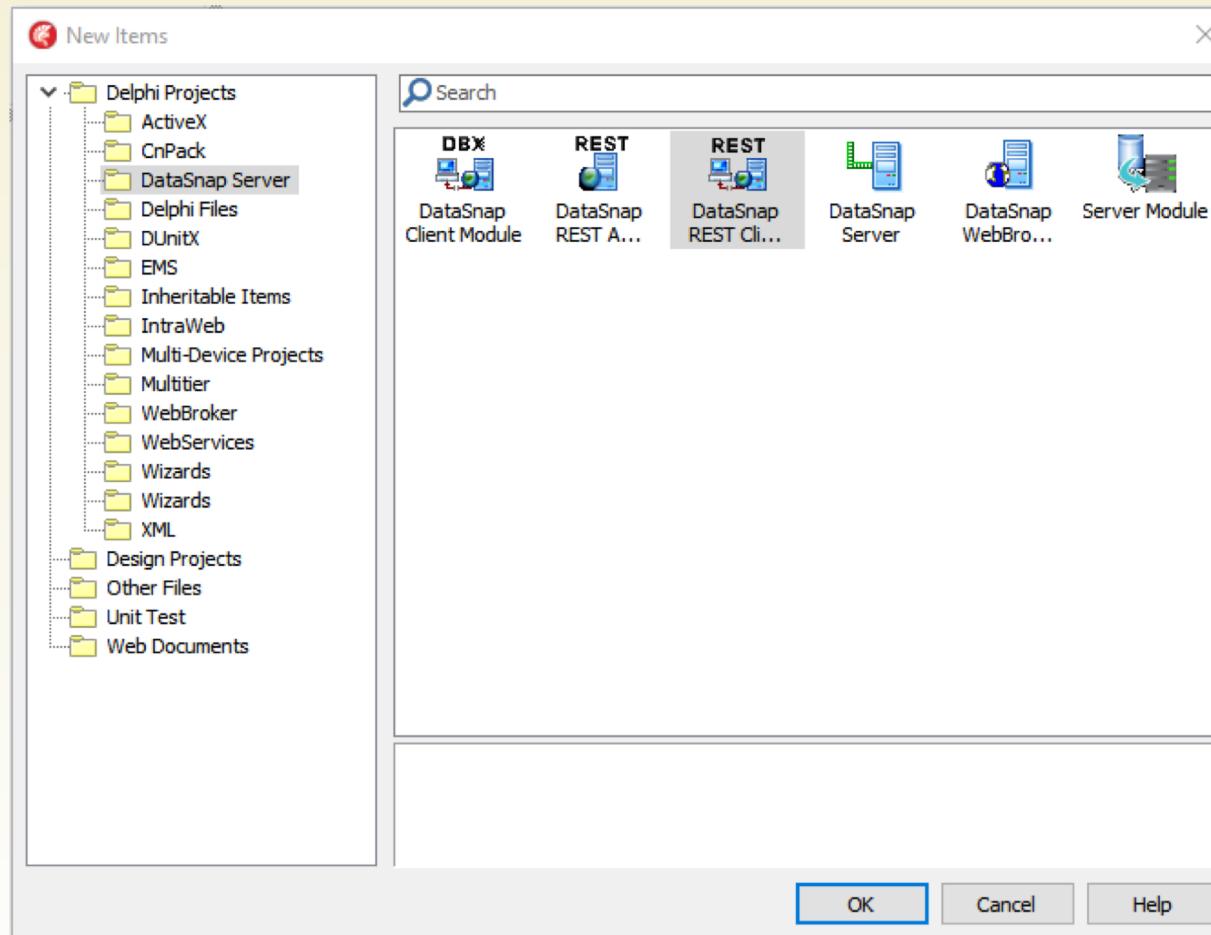
```
uses uRDM, Web.WebReq;

procedure TWebModule1.DSServerClass1GetClass(
  DSServerClass: TDSServerClass; var PersistentClass: TPersistentClass);
begin
  PersistentClass := uRDM.TRDM;
end;

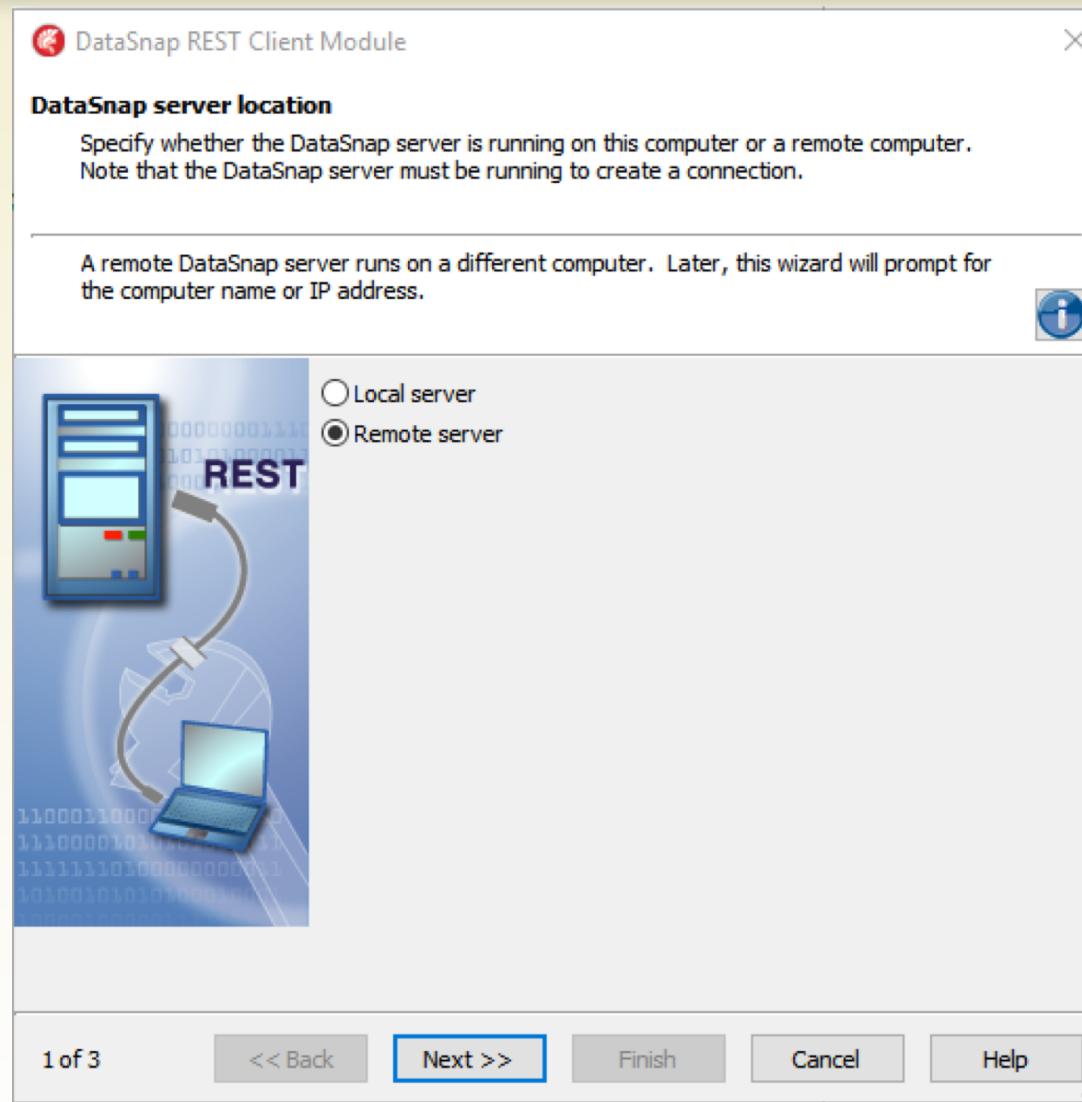
procedure TWebModule1.ServerFunctionInvokerHTMLTag(Sender: TObject; Tag: TTag;
  const TagString: string; TagParams: TStringList; var ReplaceText: string);
begin
  if SameText(TagString, 'urlpath') then
    ReplaceText := string(Request.InternalScriptName)
  else if SameText(TagString, 'port') then
    ReplaceText := IntToStr(Request.ServerPort)
  else if SameText(TagString, 'host') then
    ReplaceText := string(Request.Host)
  else if SameText(TagString, 'classname') then
    ReplaceText := uRDM.TRDM.ClassName
  else if SameText(TagString, 'loginrequired') then
    if DSHTTPWebDispatcher1.AuthenticationManager <> nil then
      ReplaceText := 'true'
    else
      ReplaceText := 'false'
  else if SameText(TagString, 'serverfunctionsjs') then
    ReplaceText := string(Request.InternalScriptName) + '/js/serverfunctions.js'
  else if SameText(TagString, 'servertime') then
    ReplaceText := DateTimeToStr(Now)
  else if SameText(TagString, 'serverfunctioninvoker') then
    if AllowServerFunctionInvoker then
      ReplaceText :=
        '<div><a href="' + string(Request.InternalScriptName) +
        '/ServerFunctionInvoker" target="_blank">Server Functions</a></div>'
    else
      ReplaceText := '';
end;
```

# Cliente Rest

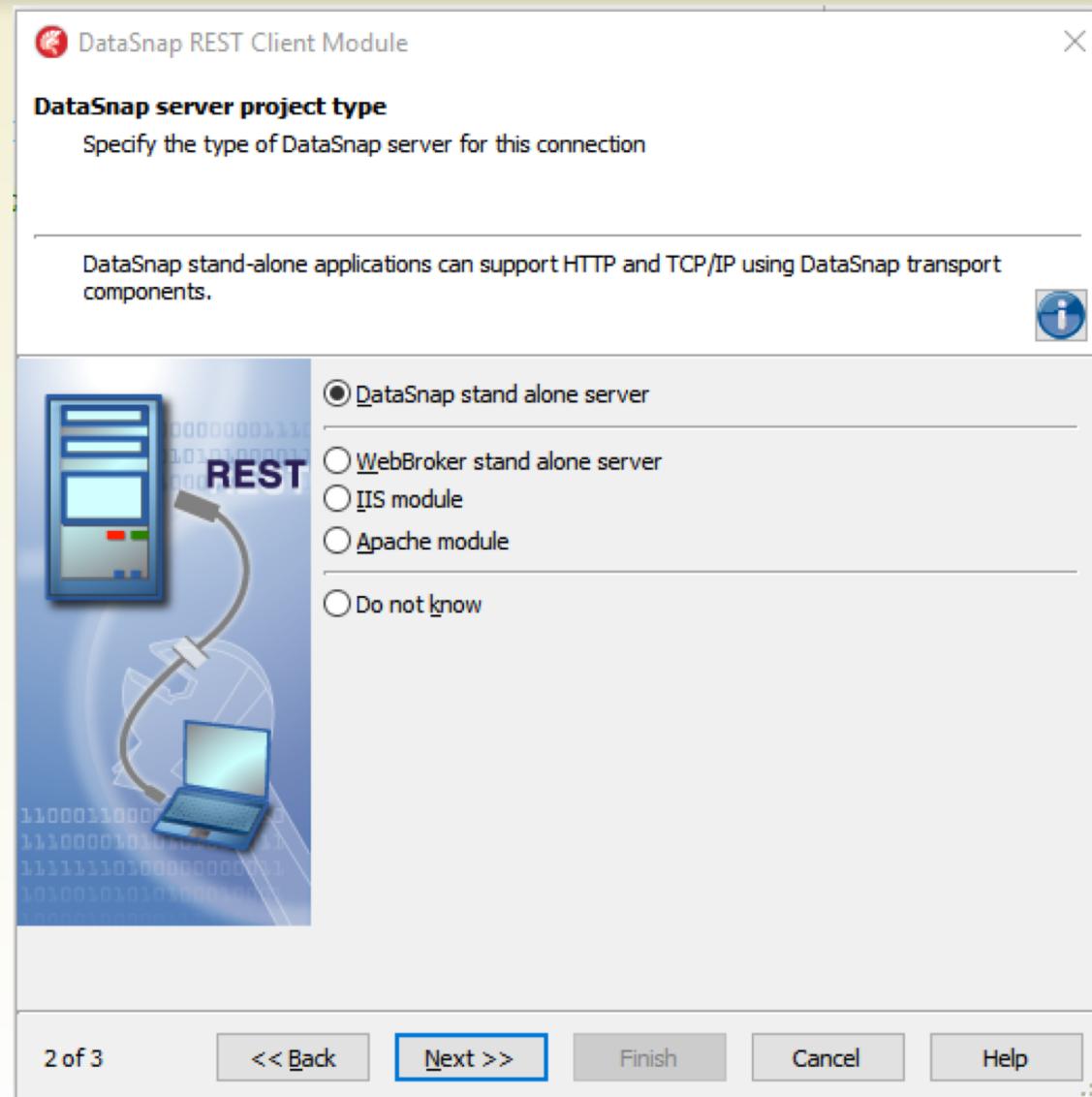
- Remover a conexão TDCOMConnection



# Cliente Rest



# Cliente Rest



# Cliente Rest



# Cliente Rest

- Client Module
- Client Class

```
- procedure TfrmMain.Button1Click(Sender: TObject);
- begin
-   Edit2.Text := DM.conEMPLOYEE.AppServer.Echo(Edit1.Text);
- end;
```

```
30 procedure TfrmMain.Button1Click(Sender: TObject);
begin
  Edit2.Text := ClientModule1.RDMClient.Echo(Edit1.Text);
end;
```

## Dicas

- Sem pânico;
- Resolva um problema de cada vez;
- Crie projetos pequenos para testar componentes;
- Mantenha seu código simples.



# Obrigado



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