

# Delphi 10.3 FireDAC, REST, Cloud e RAD Server

Fernando Rizzato Lead Software Consultant, Latin America

#### **AGENDA**

- Novidades e Melhorias Cloud
- Novidades e Melhorias REST
- Novidades e Melhorias FireDAC
- Novos Recursos do RAD Server

#### **NOVIDADES E MELHORIAS CLOUD**

- Suporte aprimorado para emulador de armazenamento Azure
- Suporte atualizado do AWS S3 para cobrir regiões adicionadas recentemente
- Adicionada a propriedade TAmazonConnectionInfo.Region
- Adicionado o parâmetro "BucketRegion: TAmazonRegion = amzrNotSpecified" para métodos TAmazonStorageService relacionados a bucket/objeto
- Melhor desempenho geral do suporte em nuvem

SignatureDoesNotMatch for TAmazonQueueService	Data, Data\Cloud	RSP-15113	
TAmazonAWS4Authentication shuld support except S3 service	Data, Data\Cloud	RSP-15702	
TAzureTableService.QueryEntitesXML function with NextPartitionKey or NextRowKey parameter returns error "One of the request input is not valid"	Data, Data\Cloud	RSP-16082 <b>≜</b>	
No https support for GetBucket in TAmazonStorageService	Data, Data\Cloud	RSP-18694 <b>≜</b>	
TAmazonStorageService.GetRegionFromEndpoint() should not return us-east-1 for virtual-hosted-style URL	Data, Data\Cloud	RSP-19519 <b></b>	
TAmazonStorageService.GetBucketInternal() does not supply NextMarker	Data, Data\Cloud	RSP-20445	
TAmazonStorageService does not handle exclamation marks and brackets in names correctly	Data, Data\Cloud	RSP-20537 <b>≜</b>	
Using HTTPS with the Azure components on iOS yields a 403 Forbidden.	Data, Data\Cloud	RSP-20757	
TAmazonStorageService does not evaluate NextMarker correctly	Data, Data\Cloud	RSP-21154 <b>≜</b>	

# **NOVIDADES E MELHORIAS REST 1/3**

- Indy substituído por THTTPClient.
- Melhorou a percepção de diferentes tipos de MIME.
- Adicionada a propriedade TRESTClient.OnNeedClientCert.
- Adicionada propriedade TRESTClient.OnAuthEvent.
- Adicionada a propriedade TRESTClient.RedirectsWithGET.
- Adicionada a propriedade TRESTClient SecurityProtocols.
- Adicionadas as opções TRESTRequestParameterOption.poFlatArray, poPHPArray, poListArray.
- Adicionado o método TRESTRequestParameter.AddValue.
- Adicionado o método TRESTRequestParameter.SetStream.
- Adicionada a propriedade TRESTRequestParameter.Stream.
- Adicionada a propriedade TRESTRequestParameter.StreamOwner.
- Adicionada a propriedade TRESTRequestParameter.Bytes.

# **NOVIDADES E MELHORIAS REST 2/3**

- Adicionado TRESTRequestParameterList.AddItem.
- Modificado o comportamento TRESTRequestParameterKind.pkGETorPOST.
- Adicionado o valor TRESTRequestParameterKind.pkQUERY.
- Adicionado métodos TRESTRequestParameterList.AddBody para substituir a classe TBodyParams.
- Adicionado o parâmetro AOwnsObject: TRESTObjectOwnership para os métodos TCustomRESTRequest.TBody.Add.
- Adicionado AContentType: argumento TRESTContentType para TCustomRESTRequest.DoPrepareQueryString.
- Adicionado AContentType: TRESTContentType, ABodyStreamOwner: Argumentos booleanos para TCustomRESTRequest.DoPrepareRequestBody.

# **NOVIDADES E MELHORIAS REST 3/3**

- THTTPClient otimizado na plataforma Windows.
- Adicionado TMultipartFormData.AddStream e AddBytes.
- Adicionado TNetHTTPClient.Put / THTTPClient.Put métodos de sobrecarga para TMultipartFormData, FileName, TStrings.
- Adicionada a classe TAcceptValueList para manipular valores considerando os cabeçalhos HTTP Accept-Xxxx.
- Adicionada classe TMimeType para manipular tipos MIME.

TCustomRESTRequest does not respect query params when doing POST/PUT/PATCH  TRESTRequest multipart cannot be set to comply with HTML 5 rules  TCustomRESTRequest.Execute - DELETE method not allowed to have body  TRESTRequest ExecuteAsync error handling problem  TRESTRequest ExecuteAsync error handling problem  TRESTClient - allow Request Body for DELETE and GET  TOAuth2Authenticator.AuthorizationRequestURl doesn't include state parameter  Enhance Speed Of JSON Or TRESTResponseDataSetAdapter Support For Large Files  REST.Client.pas memory leak fix for ARC  REST components truncating strings greater than 255 characters.  Mac Safari Update 12 Breaks TMimeTypes class  REST Client Framework has problem with List parameters.  Data, Data\REST  Data, Data\REST  RSP-18563  RSP-18563  RSP-20287  RSP-20287  RSP-20287  RSP-20287  RSP-20287  RSP-20375  RSP-20407  RSP-204		RestClient.AddBody(Stream, ctMULTIPART_FORM_DATA) adds empty body	Data, Data\REST	RSP-15701
TCustomRESTRequest.Execute - DELETE method not allowed to have body  TRESTRequest ExecuteAsync error handling problem  TRestClient - allow Request Body for DELETE and GET  TOAuth2Authenticator.AuthorizationRequestURI doesn't include state parameter  Enhance Speed Of JSON Or  TRESTResponseDataSetAdapter Support For Large Files  REST.Client.pas memory leak fix for ARC  REST components truncating strings greater than 255 characters.  Mac Safari Update 12 Breaks TMimeTypes class  REST. Data, Data\REST  Data, Data\REST  RSP-20287   RSP-20375   RSP-20407   Data, Data\REST  RSP-20407   RSP-20407   Data, Data\REST  RSP-20823   REST components truncating strings greater than 255 characters.  Data, Data\REST  RSP-21271   RSP-21271   RSP-2407   RSP			Data, Data\REST	RSP-16854 <b>월</b>
allowed to have body  TRESTRequest ExecuteAsync error handling problem  Data, Data\REST  Data, Data\REST  RSP-20375  RSP-20375  RSP-20407  RSP-			Data, Data\REST	RSP-18563 <b>≜</b>
TRESTClient - allow Request Body for DELETE and GET  TOAuth2Authenticator.AuthorizationRequestURI doesn't include state parameter  Enhance Speed Of JSON Or TRESTResponseDataSetAdapter Support For Large Files  REST.Client.pas memory leak fix for ARC  REST components truncating strings greater than 255 characters.  Mac Safari Update 12 Breaks TMimeTypes class  REST Client Framework has problem with List  Data, Data\REST  Data, Data\REST  RSP-20375   RSP-20407   RSP-20407   RSP-20407   RSP-20407   RSP-20407   RSP-20375   RSP-20407   RSP-20407   RSP-20407   RSP-20375   RSP-20407   RSP-20407   RSP-20375   RSP-20407   RSP-20375   RSP-20407   RSP-20375   RSP-20375   RSP-20375   RSP-20375   RSP-20375   RSP-20375   RSP-20375   RSP-21271   RSP-21271   RSP-21271   RSP-21271   RSP-21271   RSP-24076   RSP-24076		•	Data, Data\REST	RSP-20287 ॿ
TOAuth2Authenticator.AuthorizationRequestURI doesn't include state parameter  Enhance Speed Of JSON Or TRESTResponseDataSetAdapter Support For Large Files  REST.Client.pas memory leak fix for ARC  REST components truncating strings greater than 255 characters.  Mac Safari Update 12 Breaks TMimeTypes class  REST Client Framework has problem with List  Data, Data\REST  Data, Data\REST  Data, Data\REST  RSP-20407   RSP-20766   RSP-20766   RSP-20823   RSP-20823   RSP-20935   RSP-20935   RSP-21012   RSP-21012   RSP-21012   RSP-21271   RSP-21271   RSP-21271   RSP-21271   RSP-21271   RSP-21271   RSP-2407   RSP-2407			Data, Data\REST	RSP-20375
Data, Data\REST  Enhance Speed Of JSON Or  TRESTResponseDataSetAdapter Support For Large Files  REST.Client.pas memory leak fix for ARC  REST components truncating strings greater than 255 characters.  Mac Safari Update 12 Breaks TMimeTypes class  REST Client Framework has problem with List  Data, Data\REST  Data, Data\REST  Data, Data\REST  RSP-20766 ■  RSP-20766 ■  RSP-20766 ■  RSP-20766 ■  RSP-20823 ■  RSP-20823 ■  RSP-20935 ■  Data, Data\REST  RSP-21012 ■  RSP-21012 ■  REST Client Framework has problem with List  Data, Data\REST  RSP-2407 ■		•	Data, Data\REST	RSP-20407
TRESTResponseDataSetAdapter Support For Large Files  REST.Client.pas memory leak fix for ARC  Data, Data\REST  REST components truncating strings greater than 255 characters.  Data, Data\REST  Data, Data\REST  Data, Data\REST  RSP-20823  RSP-20935  RSP-20935  RSP-21012  RSP-21012  RSP-21012  RSP-21012  RSP-21271  RSP-21271  REST Client Framework has problem with List  Data, Data\REST  Data, Data\REST		•	Data, Data\REST	RSP-20766
REST components truncating strings greater than 255 characters.  Data, Data\REST  RSP-21012  RSP-21012  RSP-21271  RSP-21271  REST Client Framework has problem with List  Data, Data\REST  Data, Data\REST  RSP-9407		TRESTResponseDataSetAdapter Support For Large	Data, Data\REST	RSP-20823 <b>≜</b>
Data, Data\REST  Mac Safari Update 12 Breaks TMimeTypes class  Data, Data\REST  Data, Data\REST  RSP-21012  RSP-21012  RSP-21012  RSP-21012  RSP-21012  RSP-21012  RSP-21012  RSP-21012  RSP-21012		REST.Client.pas memory leak fix for ARC	Data, Data\REST	RSP-20935 🖺
REST Client Framework has problem with List  Data, Data\REST  RSP-9407			Data, Data\REST	RSP-21012
· Data, Data\REST RSP-9407⊜		Mac Safari Update 12 Breaks TMimeTypes class	Data, Data\REST	RSP-21271 🖺
		•	Data, Data\REST	RSP-9407 <b>월</b>

## **NOVIDADES E MELHORIAS FIREDAC 1/4**

- Suporte para MySQL 8.0
- Suporte para MariaDB 10.3
- Suporte para SQL Server 2017
- Suporte PostgreSQL 10, incluindo:
  - Coluna Identity
  - Macaddr8
  - Criptografia de senha
  - Novo parâmetro de conexão GUIDEndian=Little | Big

## **NOVIDADES E MELHORIAS FIREDAC 2/4**

- Suporte para Firebird 3.0, incluindo:
  - Protocolo de conexão local
  - FB\$OUT package
  - Estatísticas e Informações de isc\_database\_info()
  - Informações de estatísticas na saída do gbak
  - Suporte para instrução > 64Kb
  - Novo componente TFDFBOnlineValidate
  - Novo parâmetro de conexão GUIDEndian=Little | Big

# **NOVIDADES E MELHORIAS FIREDAC 3/4**

- Suporte para MongoDB 3.0+
  - Novo parâmetro de conexão TimeZone=Local|UTC
- Suporte para InterBase v2017, incluindo:
  - Comando TRUNCATE
  - Suporte para TRUNCATE em Change Views
  - Transaction wait time
  - Novo parâmetro de conexão GUIDEndian=Little | Big

## **NOVIDADES E MELHORIAS FIREDAC 4/4**

- Suporte para MySQL 3.23.1
  - Suporte melhorado para Linux, incluindo:
    - Suporte a Criptografia
    - Suporte a Collation
- Suporte para SQL Anywhere 5+
  - Nova propriedade TFDPhysASADriverLink.ToolHome
  - Adicionado suporte para TFDEventAlerter

Machine   Mach	Duplicate ftString entry in FireDAC Query Editor Parameters Data Type Combo Box	Data, Data\FireDAC	RSP-12955 월	It's not possible to return function result from the TFDSQLiteFunction.OnFinalize event	Data, Data\FireDAC	RSP-20227 🖺
FireDAC FDStoredPrior] ExerEfunc Cause error:Parameter Recult not found* FireDAC Cache error when all details are deleted FireDAC CoBC Bad performance using FD ODEC FireDAC DBC Bad performance using FD ODEC Data, DataFireDAC  BSP-10662 B FireDAC Server  Data DataFireDAC  BSP-1048  FireDAC CoBC Bad performance using FD ODEC Data, DataFireDAC  BSP-1048  FireDAC CoBC Bad performance using FD ODEC Data, DataFireDAC  BSP-2056-28  TDP/fireDAC CoBC Bad performance using FD ODEC Data, DataFireDAC  BSP-2056-28  TDP/fireDAC CoBC Bad performance using FD ODEC Data, DataFireDAC  BSP-2056-28  TDP/fireDAC CoBC Bad performance using FD ODEC FireDAC MSACQ FireDAC falls to call stored procedure on access database  TDP/fireDAC fireDAC files to call stored procedure on access database  Data, DataFireDAC  BSP-2058-28  TBDatabase move GetDatabaseInfo from private to Data, DataFireDAC  BSP-2058-28  FireDAC Cache common files  FireDAC cache common files  FireDAC dataFireDAC  BSP-2058-28  FireDAC data for end of the private of the procedure with FireDAC  BSP-2058-28  FireDAC data for end of the private of the private formation of the private of the procedure with FireDAC  BSP-2058-28  FireDAC data for end of the private of the	•	Data, Data\FireDAC	RSP-14835 <b>3</b>		Data, Data\FireDAC	RSP-20251 🖺
Error-Parameter Result* not found*  Data, Data/FireDAC  RSP-1620@  FireDAC Cache error when all details are deleted  Data, Data/FireDAC  RSP-16624@  FireDAC Cache error when all details are deleted  Data, Data/FireDAC  RSP-16662@  FireDAC OBC  Bad performance using FD ODBC diview with SQL Server  Data, Data/FireDAC  RSP-17014@  Data, Data/FireDAC  RSP-17014@  TMongoDocument  Data, Data/FireDAC  RSP-17014@  Data Data/FireDAC  RSP-17014@  Data Data/FireDAC  RSP-17014@  TMongoDocument  Data, Data/FireDAC  RSP-17014@  Data, Data/FireDAC  RSP-17014@  Data, Data/FireDAC  RSP-17014@  Data, Data/FireDAC  RSP-17014@  TMongoDocument  FireDac (Driver open connections one at a time causing Threaded servers to hung if connection fall to connect  FireDAC (Driver open connections one at a time causing Threaded servers to hung if connection fall to connect  FireDAC (SACA) FireDAC (RSP-17178@)  Data, Data/FireDAC  RSP-17178@  TRID-Data/Ser nove GetData/Seriol to call stored procedure on access database  Data, Data/FireDAC  RSP-19148@  TRID-Data/Ser nove GetData/Seriol to call stored procedure on access database  Data, Data/FireDAC  RSP-19148@  TRID-Data/Ser nove GetData/Seriol to call stored procedure on access database  Data, Data/FireDAC  RSP-19148@  TRID-Data/Ser nove GetData/Seriol to call stored procedure on access database  Data, Data/FireDAC  RSP-19148@  TRID-Data/Ser nove GetData/Seriol to call stored procedure on access database  Data, Data/FireDAC  RSP-19148@  TRID-Data/Ser nove GetData/Seriol to call stored procedure on access database  Data, Data/FireDAC  RSP-20152@  Data, Data/FireDAC  RSP-20162@  TRID-Data/Ser nove GetData/Seriol to call stored procedure on access database  Data, Data/FireDAC  RSP-20162@  TRID-Data/Seriol common trib reduced does not work with FedAc  TRID-Tale/Seriange / Index-Name  Data, Data/FireDAC  RSP-20162@  TRID-Data/Seriol common trib reduced does not work with FedAc  RSP-20163@  TRID-Data/Seriol common trib Result for the common trib Result for the common trib Result for the common trib R					Data, Data\FireDAC	RSP-20311
FireDAC Cache error when all dealls are deleted  Data, DataVireDAC  RSP-1662/8  FireDAC, ODBC Bad performance using FD ODBC  GrierDAC, ODBC Bad performance using FD ODBC  Data, DataVireDAC  RSP-17014/8  ThomspoDocument  FireDac CopyOataset give exception on multiple  nested datasets  TFDPhysyccommanGenerator does not consider  least Data DataVireDAC  RSP-20062/8  TFDPhysyccommanGenerator does not consider  least DataDataVireDAC  RSP-20062/8		Data, Data\FireDAC	RSP-16230 <b>≜</b>			
FireDAC, OTHeolite of Procedure (1997)   Data, Data/FireDAC   Data, Data/FireDAC   Data, Data/FireDAC   Data, Data/FireDAC   Data, Data/FireDAC   RSP-17014   RSP-17014   Data, Data/FireDAC   RSP-17014   Data, Data/FireDAC   RSP-17014   RSP-17014   Data, Data/FireDAC   RSP-17014	FireDAC Cache error when all details are deleted	Data, Data\FireDAC	RSP-16247 <b></b>	metadata from a mysql stored function that ahs as	Data, Data\FireDAC	RSP-20319 <b>a</b>
FireDAC, ODBC  Bad performance using FD ODBC driver with SQL Server   Data, Data/FireDAC   RSP-17014.3		Data, Data\FireDAC	RSP-16662	precision)		
Date Time values are inconsistently handle in Thompsobocument  Firebird Driver open connections one at a time causing Threaded servers to hung if connection fail to connect  Firebird Driver open connections one at a time causing Threaded servers to hung if connection fail to connect  Firebox MacCi FireDAC fails to call stored procedure on access database  TiBDatabase move GetDatabaseinfo from private to protected  FireDAC, Tx is not a valid floating point value* error on numeric fields  FireDAC component TFDBatchMove event Only in the Type and participated on the procedure with TFDBatchMove event Only in the Type and participated on the Minister of FireDAC and PostgreSQL Numeric columns returned by Wirth Causing for FireDAC and PostgreSQL Server overloaded stored procedure with FireDAC  RSP-1973 a TFDSunderInconnection and the connection of the procedure on access database  TiBDatabase move GetDatabaseinfo from private to protected  TiFoDAC or not a valid floating point value* error on numeric fields  FireDAC component TFDBatchMove event Only interfered Change converted TEXT BLOB values  FireDAC data type mapping for guid not working properly for Firebird  FireDAC gain for firebac Autocommit doese Data, DataVFireDAC  RSP-1973 a TFDSvendProc can not open MySQL Stored Procedure with FireDAC  RSP-19394 a TFDSvendProc can not open MySQL Stored Procedure with FireDAC  RSP-19394 a TFDSvendProc can not open MySQL Stored Procedure with FireDAC  FireDAC garage move GetDatabaseinfo from private to protected on numeric fields  FireDAC services and the dead on two kinds protected with FireDAC  RSP-19394 a TFDSvendProc can not open MySQL Stored Procedure with FireDAC  RSP-19394 a TFDSvendProc can not open MySQL Stored Procedure with FireDAC  RSP-19394 a TFDSvendProc can not open MySQL Stored Procedure with FireDAC  RSP-19395 a TFDSvendProc can not open MySQL Stored Procedure with FireDAC  RSP-19394 a TFDSvendProc can not open MySQL Stored Procedure with FireDAC  RSP-19395 a TFDSvendProc can not open MySQL Stored Procedure w	[FireDAC, ODBC] Bad performance using FD ODBC	AC, ODBC] Bad performance using FD ODBC  Data Data\FireDAC	DCD 47044 @		Data, Data\FireDAC	RSP-20362 🖺
ThongoDocument  Data, Data\FireDAC  RSP-17049  Firebird Driver open connections one at a time causing Threaded servers to hung if connection fall to connect  Fireback MSAcc  FireDAC fails to call stored procedure on access database  Data, Data\FireDAC  Data, Data\FireDAC  Data, Data\FireDAC  RSP-17178  Data, Data\FireDAC  RSP-17178  TPDStoredact with FireDAC  RSP-19148  TEDStoredact with readonly mode  Data, Data\FireDAC  RSP-19148  TEDStoredact with readonly mode  TEDDEventIleTers ample does not work with FireDAC  RSP-1934  TEDDEventIleTers ample does not work with SQL  Anywhere  Truncated strings for Informix LVarchar types  Data, Data\FireDAC  RSP-12126  TEDGAC and PostgreSQL: Numeric columns  Tellored against FireBack database  Tell			RSP-17014首		Data, Data\FireDAC	RSP-20403 <b>≅</b>
Firebird Driver open connections one at a time causing Threaded servers to hung if connection fail to connect  Fireback MSAcc  FireDAC fails to call stored procedure on access database  Data, Data\FireDAC  Data, Data\FireDAC  RSP-1718\frac{3}{2}  FireDAC, MSAcc  FireDAC fails to call stored procedure on access database  TiBDatabase move GetDatabaseInfo from private to protected  FireDAC  Tx is not a valid floating point value" error on numeric fields  FireDAC component TFDBatchMove event  OnWriteValue with TFDBatchMove event  OnWriteValue with TFDBatchMove DataSetWriter  Change converted TEXT ELDB Values  FireDAC data type mapping for guid not working properly for Firebird  FireDAC data type mapping for guid not working properly for Firebird  FireDAC Data, Data\FireDAC  RSP-1933\frac{3}{2}  FireDAC RSP-1933\frac{3}{2}  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping for guid not working properly for FireDace  FireDAC data type mapping	-	Data, Data\FireDAC	RSP-17049 <b>≜</b>	PostgreSQL query returning incorrect date	Data, Data\FireDAC	RSP-20629 <b>△</b>
Causing Threaded servers to hung if connection fail to connect    Part   Can not execute a SQL Server overloaded stored procedure with FireDAC   Data, Data\FireDAC   RSP-20782   Data, Data\FireDAC   RSP-21459   Data, Data\FireDAC			RSP-17103 🖺		Data, Data\FireDAC	RSP-20662 <b>≅</b>
FireDAC, MSACcJ FireDAC fails to call stored   Data, Data\FireDAC   RSP-1918   Procedure on access database   Data, Data\FireDAC   RSP-1918   Procedure with readonly mode   Data, Data\FireDAC   RSP-2082   Procedure with readonly mode   Data, Data\FireDAC   RSP-20183   Procedure with readonly mode   Data, Data\FireDAC   RSP-21183   Procedure with readonly mode   Data, Data\FireDAC   RSP-21083   Procedure with readonly mode   Data, Data\FireDAC	·	Data, Data\FireDAC		Firedac Autocommit doesn't work properly	Data, Data\FireDAC	RSP-20782
Data, Data\FireDAC  RSP-1918   FireDstoredProc can not open MySQL Stored Procedure with readonly mode protected  RSP-1918   FireDatabase move GetDatabaseInfo from private to pata DataVireDatabase move GetDatabaseInfo from private to pata DataVireDatabase information protection pro				•	Data, Data\FireDAC	RSP-20837 🖺
Protected   Data, Data\FireDAC   RSP-19148   TFDTable.SetRange / IndexName   Data, Data\FireDAC   RSP-21183   TFDTable.SetRange / IndexName   Data, Data\FireDAC   RSP-21220   Data, Data\FireDAC   RSP-21423   Data, Data\FireDAC   RSP-21450   Data, Data\FireDAC		Data, Data\FireDAC	RSP-17178 월		Data, Data\FireDAC	RSP-20882 🖺
FireDAC   TFDTable.SetRange / IndexName   Data, Data\FireDAC   RSP-21183    FDEVentAlerter Sample does not work with SQL   Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21220    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21242    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21242    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21242    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21242    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21242    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21266    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21266    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21266    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21266    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21266    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21266    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21266    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21266    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21266    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21266    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21266    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21266    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21266    Anywhere   Truncated strings for Informix LVarchar types   Data, Data\FireDAC   RSP-21266    Anywhere   Truncated strings for Informix LVarchar types   Da	TIBDatabase move GetDatabaseInfo from private to	ata Data\EireD&C	RSP-19148 <b></b>	Firebird 3 embedded does not work with FireDAC	Data, Data\FireDAC	RSP-20919 <b></b>
Data, Data\FireDAC  RSP-19394  Anywhere  Data, Data\FireDAC  RSP-21220  Anywhere  Truncated strings for Informix LVarchar types  Data, Data\FireDAC  RSP-21242  Truncated strings for Informix LVarchar types  Data, Data\FireDAC  RSP-21242  Truncated strings for Informix LVarchar types  Data, Data\FireDAC  RSP-21242  Truncated strings for Informix LVarchar types  Data, Data\FireDAC  RSP-21256  FireDAC and PostgreSQL: Numeric columns  returned by WITH clausule gets randomized values  FireDAC wrong error message from FireDAC  FDConnection no writes until close  Data, Data\FireDAC  RSP-21268  RSP-21268  FireDAC and PostgreSQL: Numeric columns  returned by WITH clausule gets randomized values  Wrong error message from FireDAC  RSP-21423  FDConnection no writes until close  Data, Data\FireDAC  RSP-21423  FDConnection no writes until close  Data, Data\FireDAC  RSP-21423  Truncated strings for Informix LVarchar types  Data, Data\FireDAC  RSP-21268  FireDAC and PostgreSQL: Numeric columns  returned by WITH clausule gets randomized values  Wrong error message from FireDAC wrong error	protected	Data, Data ii ii CDAC		TFDTable.SetRange / IndexName	Data, Data\FireDAC	RSP-21183 월
FireDAC component TFDBatchMove event OnWriteValue with TFDBatchMoveDataSetWriter change converted TEXT BLOB values  FireDAC data type mapping for guid not working properly for Firebird  FDConnection no writes until close  Provide newer libsqlite.a for iOS  [FireDAC, ODBC] "Optional function not  Data, Data\FireDAC  RSP-21242 AB  FIreDAC RSP-21242 BE  FireDAC generates wrong SQL for TFDTable.CreateTable against FireBird database  FireDAC and PostgreSQL: Numeric columns returned by WiTH clausule gets randomized values  Wrong error message from FireDAC whe opening TFDTable with no TableName  Update from Delphi 10.1 to 10.2.3 causes FireDAC ORA-12704: character set mismatch  FireDAC, ODBC] "Optional function not  Data, Data\FireDAC  RSP-21454 BE  Truncated strings for Informix LVarchar types  Data, Data\FireDAC  RSP-21268 BE  FireDAC and PostgreSQL: Numeric columns returned by WiTH clausule gets randomized values  Wrong error message from FireDAC whe opening TFDTable with no TableName  Update from Delphi 10.1 to 10.2.3 causes FireDAC  ORA-12704: Character set mismatch  FireDAC FunRand function always returns  Unassigned when called with two args  Data, Data\FireDAC  RSP-21459 BE  Truncated strings for Informix LVarchar types  Data, Data\FireDAC  RSP-21268 BE  FireDAC generates wrong SQL for TFDTable.CreateTable against FireBird database  FireDAC generates wrong SQL for TFDTable.CreateTable against FireBird database  FireDAC generates wrong SQL for TFDTable.CreateTable against FireBird database  FireDAC generates wrong SQL for TFDTable.CreateTable against FireBaC  RSP-21268 BE  Wrong error message from FireDAC who opening TFDTable with no TableName  Data, Data\FireDAC  RSP-21459 BE		Data, Data\FireDAC	RSP-19394 <b>월</b>	·	Data, Data\FireDAC	RSP-21220
OnWriteValue with TFDBatchMoveDataSetWriter change converted TEXT BLOB values  FireDAC data type mapping for guid not working properly for Firebird  FDConnection no writes until close  Provide newer libsqlite.a for iOS  Data, Data\FireDAC  Data, Data\FireDAC  RSP-19733  Data, Data\FireDAC  RSP-19755  Data, Data\FireDAC  RSP-19755  Data, Data\FireDAC  RSP-19755  Data, Data\FireDAC  RSP-19937  Data, Data\FireDAC  RSP-21423  Data, Data\FireDAC  RSP-21423  Data, Data\FireDAC  RSP-21454  Data, Data\FireDAC  RSP-21459  Data, Data\FireDAC				Truncated strings for Informix LVarchar types	Data, Data\FireDAC	RSP-21242 월
FireDAC data type mapping for guid not working properly for Firebird  Data, Data\FireDAC  RSP-19755   Wrong error message from FireDAC whe opening TFDTable with no TableName  Data, Data\FireDAC  RSP-21268   Wrong error message from FireDAC whe opening TFDTable with no TableName  Data, Data\FireDAC  RSP-21423   Update from Delphi 10.1 to 10.2.3 causes FireDAC  ORA-12704:ORA-12704: character set mismatch  FireDAC, ODBC] "Optional function not  Data, Data\FireDAC  RSP-21459   RSP-21459   Data, Data\FireDAC	·		RSP-19733 🖺		Data, Data\FireDAC	RSP-21256 <b>≜</b>
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Provide newer libsqlite.a for iOS  Data, Data\FireDAC  RSP-20082   [FireDAC, ODBC] "Optional function not  Data, Data\FireDAC  RSP-20165   Data, Data\FireDAC  RSP-20165   Data, Data\FireDAC  Data, Data\FireDAC  RSP-21454   Data, Data\FireDAC  RSP-21459   Data, Data\FireDAC  Data, Data\FireDAC  RSP-21459   Data, Data\FireDAC		Data, Data\FireDAC	RSP-19755 월		Data, Data\FireDAC	RSP-21423 <b>월</b>
Provide newer libsqlite.a for iOS  Data, Data\FireDAC  RSP-20082   [FireDAC, ODBC] "Optional function not  Data, Data\FireDAC  RSP-20165   Data, Data\FireDAC	FDConnection no writes until close	Data, Data\FireDAC	RSP-19937 <b></b>		Data, Data\FireDAC	RSP-21454 €
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Implemented" using PI ODBC driver  Error "Invalid field size" using FireDAC + MySQL  Data, Data\FireDAC  RSP-21478  Begin to the properties of the properti		Data, Data\FireDAC	RSP-20165 <b>≜</b>	Unassigned when called with two args		_
	implemented" using PI ODBC driver			Error "Invalid field size" using FireDAC + MySQL	Data, Data\FireDAC	RSP-21478 월

#### **NOVOS RECURSOS DO RAD SERVER**

- Melhorias de desempenho e gerenciamento de memória
- Novo EndPoint Attributes para mapeamento baseado em Content-Type e Accept
- HTTP Verb para mapeamento de métodos customizados
- Capacidade de delegar processamento de uma solicitação a uma classe ou componente personalizado
- Helper Component para processamento JSON

REMOS

#### **RECURSOS ADICIONAIS**

#### Documentação

- http://docwiki.embarcadero.com/RADStudio/Rio/en/What's\_New
- http://docwiki.embarcadero.com/RADStudio/Rio/en/Release\_Notes
- http://docwiki.embarcadero.com/RADStudio/Rio/en/New\_features\_and\_customer\_rep orted\_issues\_fixed\_in\_RAD\_Studio\_10.3

#### **Blogs**

- http://blog.marcocantu.com/blog/2018-december-coderage2018-source-code.html
- http://blog.marcocantu.com/blog/2018-delphi-rtl-improvements-rio.html
- http://blog.marcocantu.com/blog/2018-july-replay-code-webinar-rad-server.html

# **OBRIGADO!**

# Perguntas?

Você pode me encontrar em: @FernandoRizzato fernando.rizzato@embarcadero.com

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