



## 10.3.2 Launch Webinar



RAD Studio™ 10.3.2

See What's New in 10.3.2

# RAD Studio PM Team



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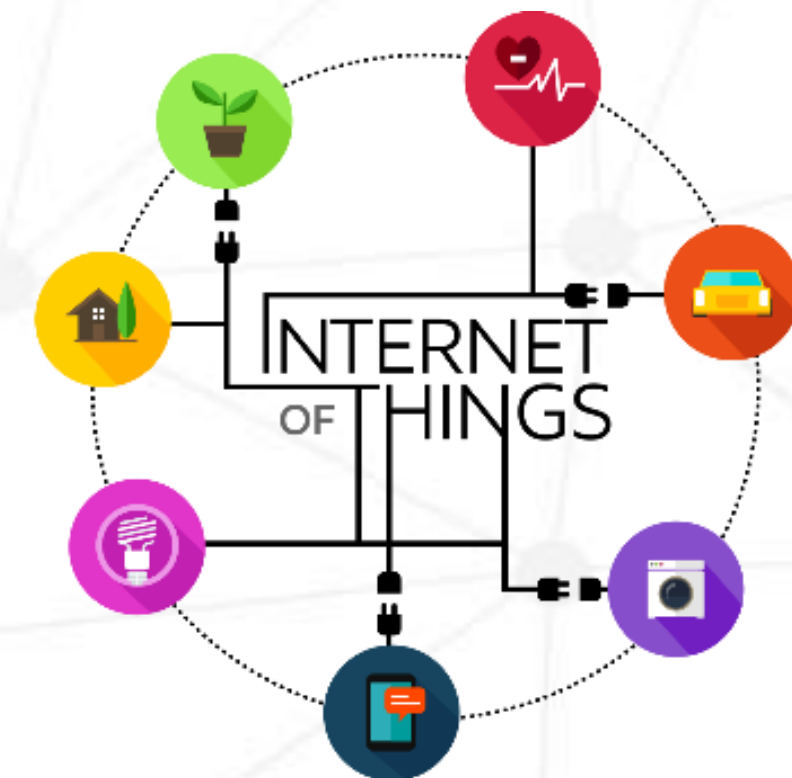
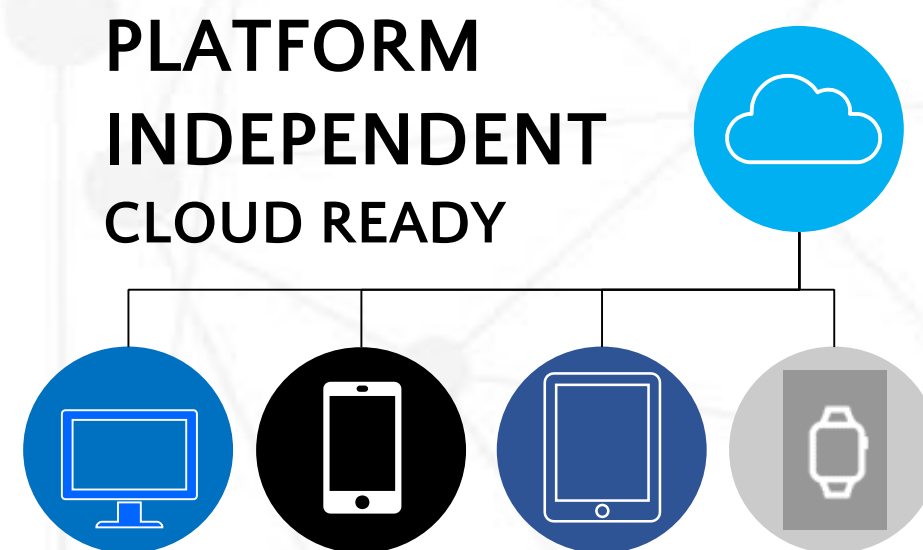
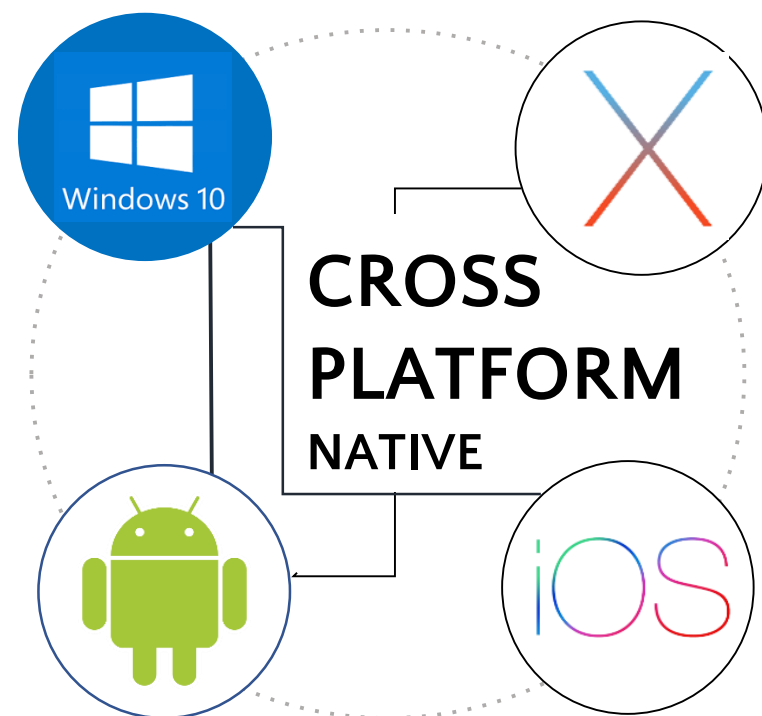
**Marco Cantù**  
**marco.cantu@embarcadero.com**



# What is RAD Studio?



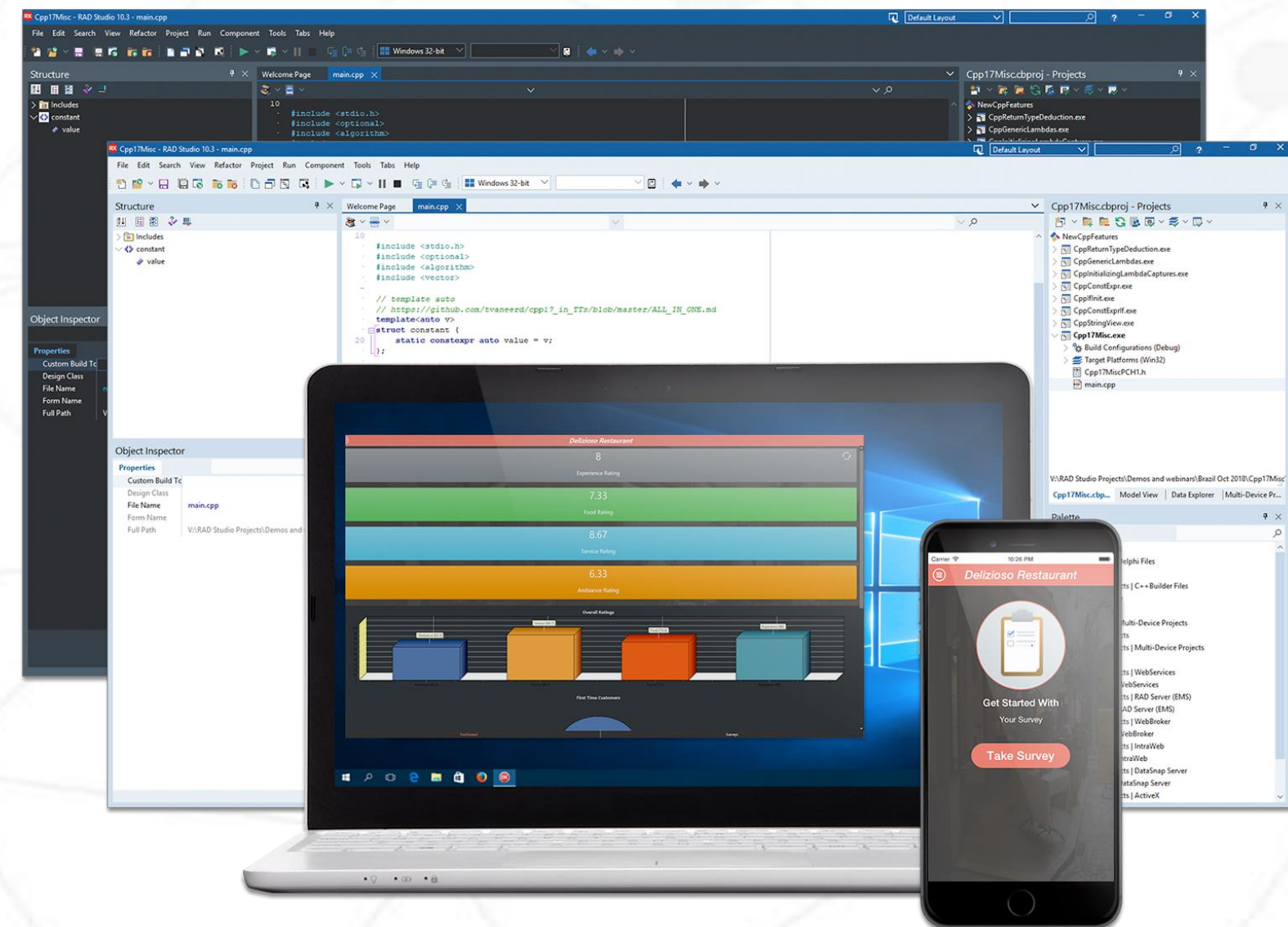
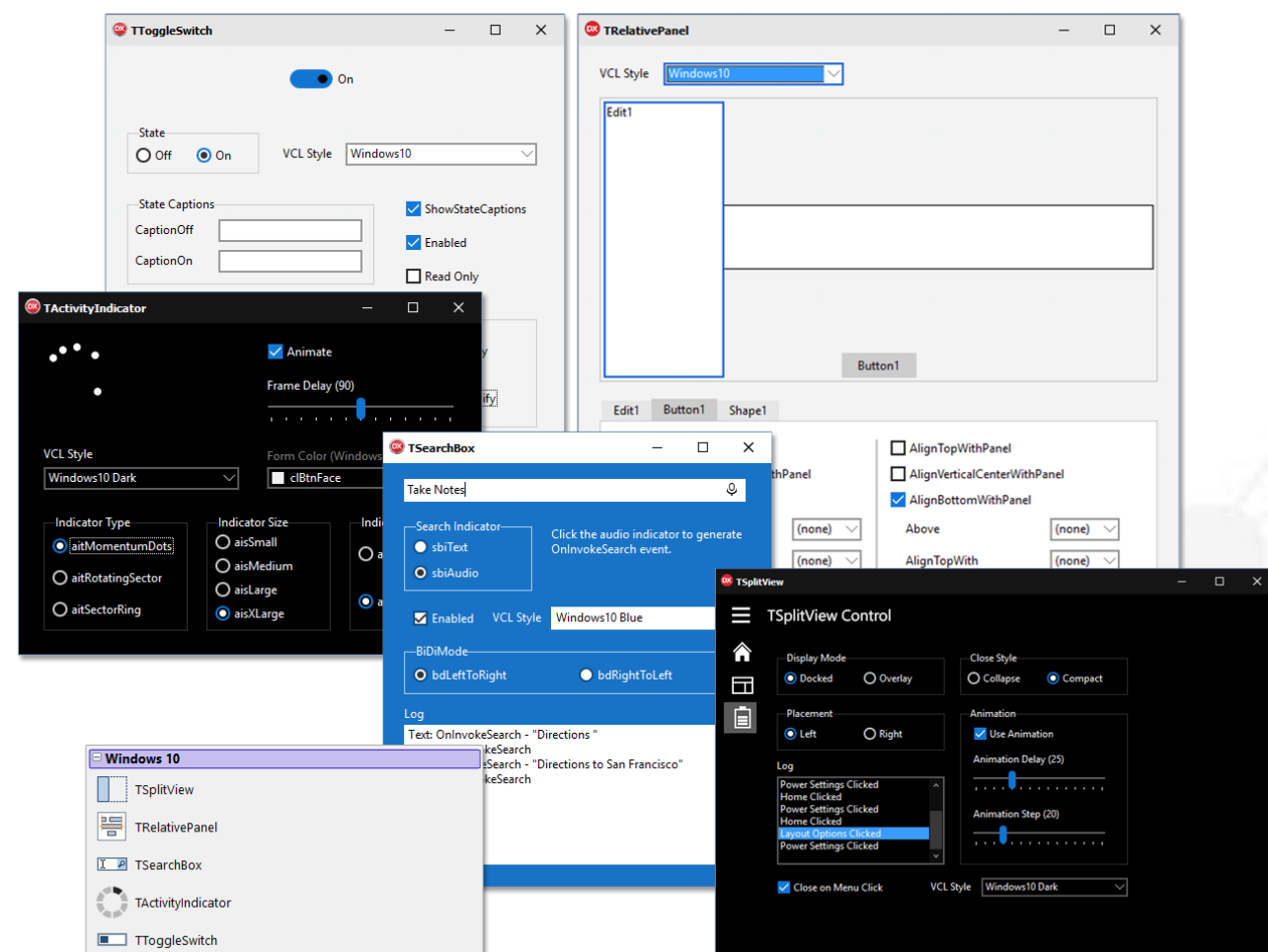
RAD Studio is the ultimate IDE with features both C++ and Delphi developers love: design, code, debug, and test for cross-platform deployment with native performance.



# Fast, Visual Development



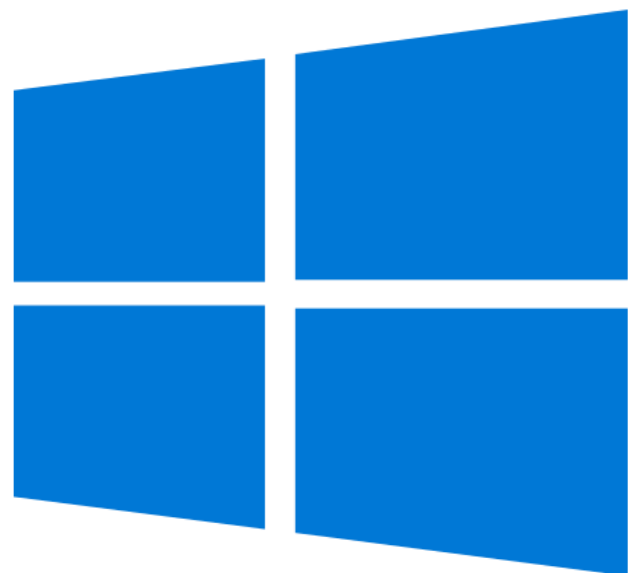
RAD Studio provides powerful VCL controls for Windows 10 and enables FMX multi-device application development for Windows, Mac, Linux, iOS and Android



# RAD Studio Platform Support



Target the latest versions of major operating systems with one codebase!



**Windows 10**

October 2018 Update



**macOS Mojave**



**Linux 64-bit**

Ubuntu & Red Hat  
Enterprise  
(Delphi Only)



**Android Pie**



**iOS 12**

**Officially Supporting**

# What's New in 10.3.2



- Delphi macOS 64-bit
- C++17 for Windows 64-bit
- C++ LSP Code Insight Improvements & New Features
- RAD Server Wizards and Deployment Improvements
- Android Push Notification Support with Firebase
- Delphi Linux FireMonkey GUI Application Support
- Many Quality Improvements throughout



# macOS 64-bit application support for Delphi

*Support the Mac App Store and prepare for the upcoming 64-bit-only version of macOS*

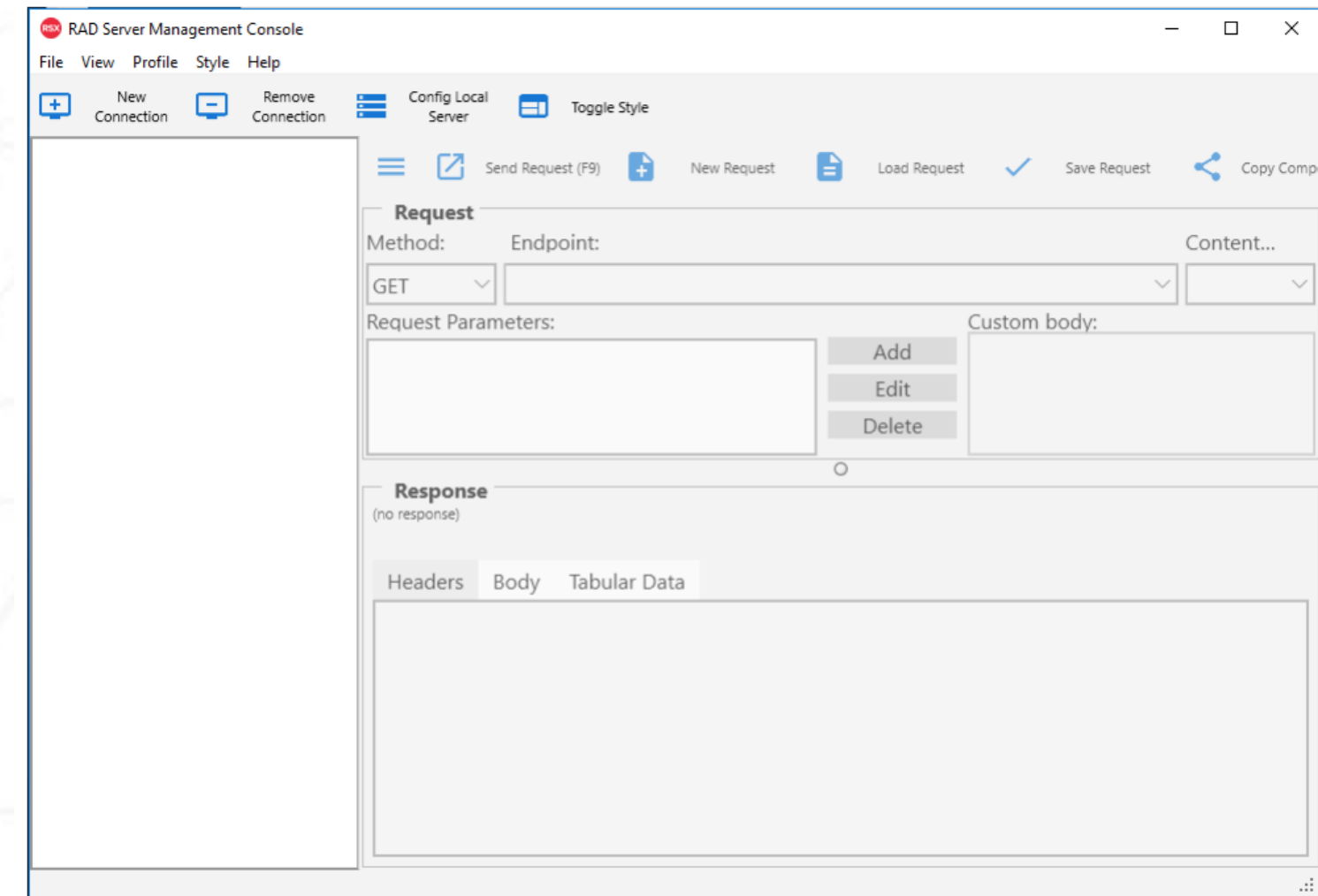
- **Build App Store ready macOS 64-bit applications**
  - Includes macOS notarization support
- **New Delphi compiler for the macOS 64-bit platform, based on the LLVM compiler infrastructure**
  - Non-ARC model like all other Delphi desktop and server platforms
  - Extensive RTL support
- **Complete support for the FireMonkey library and all FireMonkey controls previously available on the macOS 32-bit platform**
- **Support for the database RTL and the FireDAC client access library**
  - InterBase support for Delphi macOS 64-bit
- **Quality Improvements in macOS FMX support for both 32-bit and 64-bit**



# RAD Server Wizards and Deployment Improvements

*Much easier configuration, deployment and management for RAD Server multi-tier*

- Improvements to the RAD Server wizards for automatic FireDAC database mapping and API documentation
  - Smoother Swagger API documentation and support for Swagger-UI
- New RAD Server Management Console with configuration editor and integrated REST debugger for quickly executing a generic REST call against the server
- Simplified deployment process with installers for Linux and Windows servers

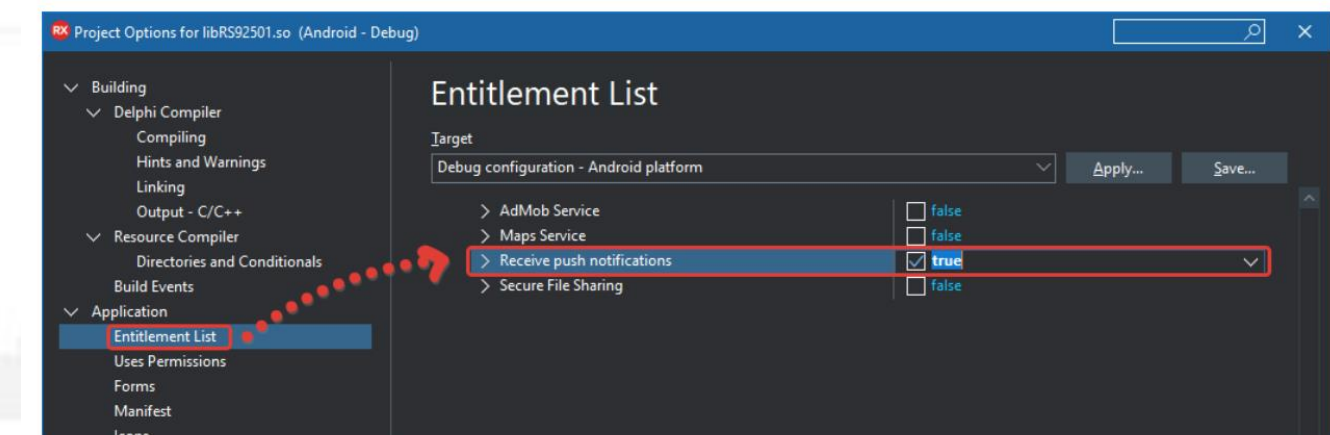
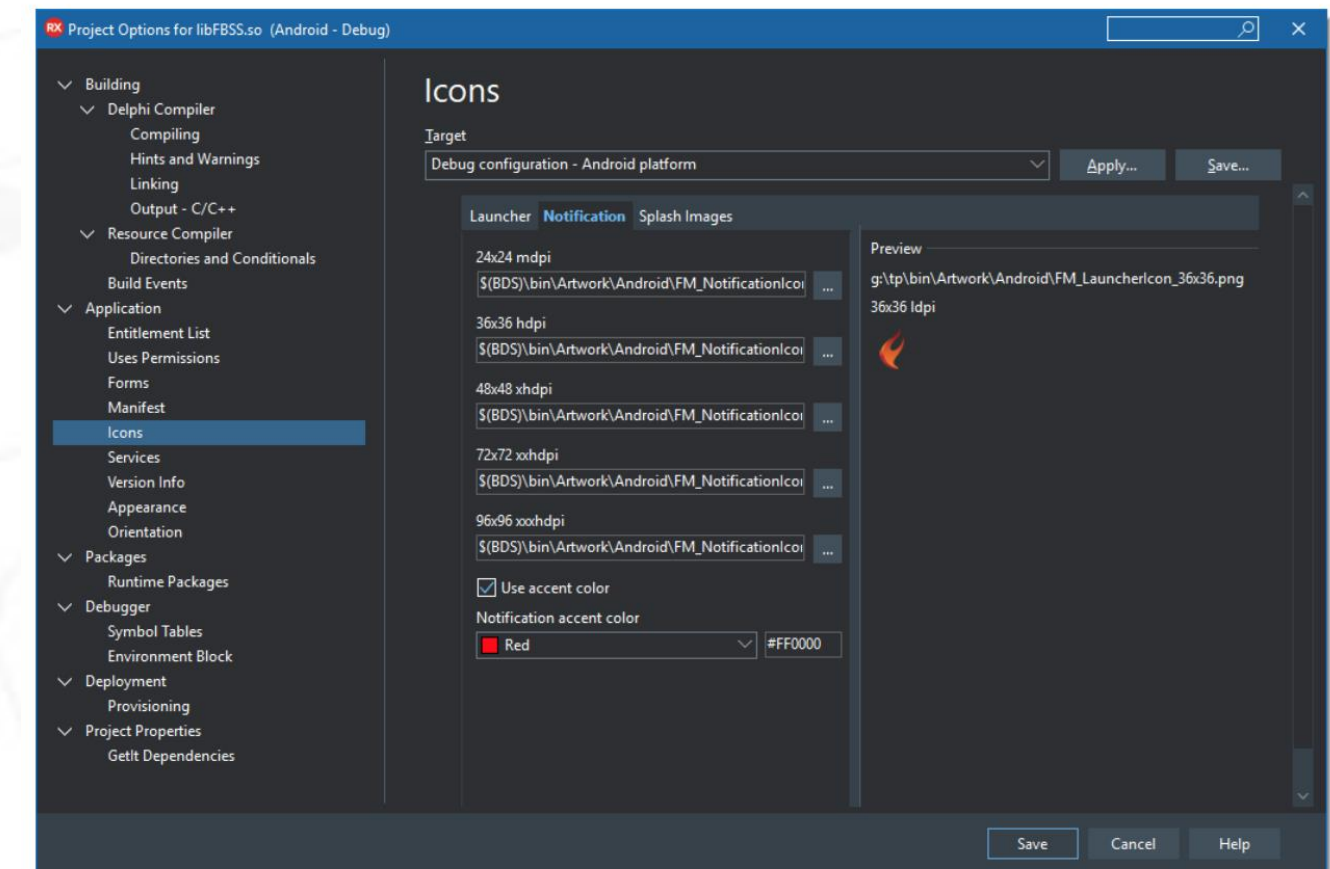




# Android Push Notification Support with Firebase

*Push notifications are a key feature for many apps – we now support the latest standards from Google*

- FireBase push notification support for your FireMonkey 10.3.2 Android applications
  - Replaces deprecated Google Cloud Messaging
- Provided as part of our Android platform support
  - Includes improvements to icons for all types of notifications
  - Includes updates to Google Play Services and Maps to match Firebase version support requirements

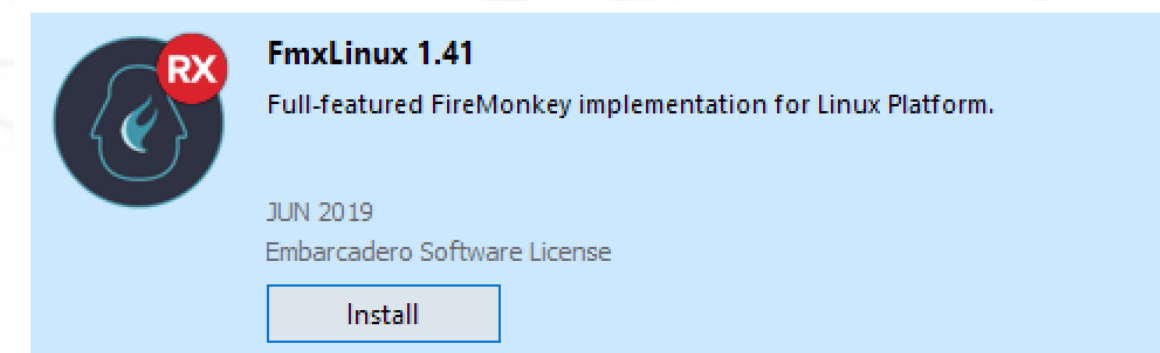
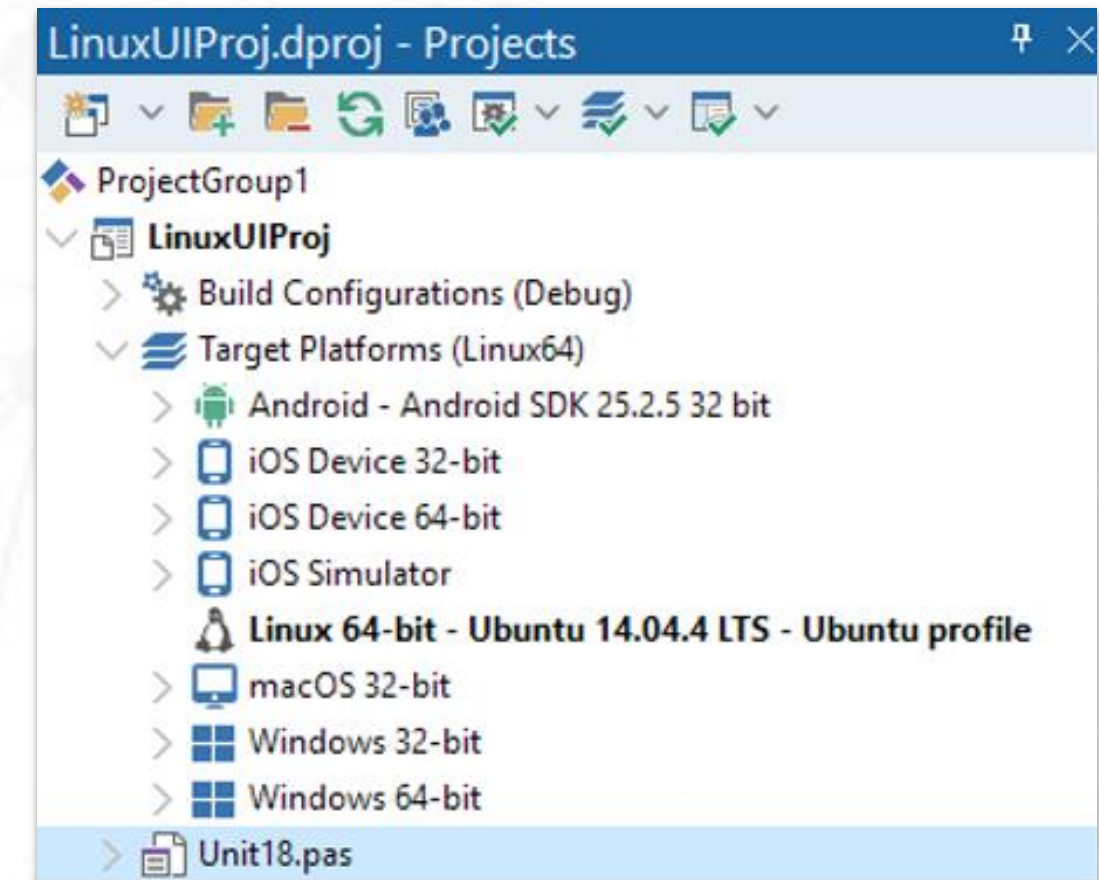




# FMX Linux for Delphi

*You can now create Linux desktop apps with FMX GUI*

- Easily build GUI applications for popular Linux distributions
- Extends Delphi's FireMonkey cross-platform framework
- Includes several ready-to-use user interface styles
- Many of the FMX components, such as grids, widgets, etc. work seamlessly on Linux clients
- Leverage RAD Studio's innovative features, such as Live Bindings, and much more, in your Linux client applications
- Available via GetIt for Enterprise and Architect Edition customers



# C++17 for Windows 64-bit

*Leverage the latest C++ language features in apps built for both Win32 and Win64, with complete C++17 support for Windows*

- C++17 Clang-enhanced compiler and toolchain for Win64 (bcc64), meaning C++17 is available for both Win32 and Win64 targets
- C++ runtime library (RTL) built with the updated Clang-enhanced compiler for Win64, including current edition of Dinkumware STL
- Also includes support for C++14
- Boost library support for both Win32 and Win64
- [http://docwiki.embarcadero.com/RADStudio/Rio/en/Clang-enhanced\\_C%2B%2B\\_Compilers](http://docwiki.embarcadero.com/RADStudio/Rio/en/Clang-enhanced_C%2B%2B_Compilers)



# C++17 for Windows 64-bit

- [http://docwiki.embarcadero.com/RADStudio/Rio/en/Modern\\_C%2B%2B\\_Features\\_Supported\\_by\\_RAD\\_Studio\\_Clang-enhanced\\_C%2B%2B\\_Compilers](http://docwiki.embarcadero.com/RADStudio/Rio/en/Modern_C%2B%2B_Features_Supported_by_RAD_Studio_Clang-enhanced_C%2B%2B_Compilers)
- [BCC32](#) also supports the C++11 features described in [C++11 Features in the Classic Compiler](#).
- *Note: When using the keywords specific to C++11, such as `nullptr`, `noexcept`, and so on (see <http://en.cppreference.com/w/cpp/keyword> for complete list), RAD Studio IDE always recognizes these keywords, but the C++ previous-generation compilers ([BCC32](#) and [BCCOSX](#)) return a compilation error. Please note that only [Clang-enhanced C++ compilers](#) support the C++11 standard.*

# Boost Library Support for Windows 64-bit

*This key and widely used C++ library is available inbuilt with C++Builder*

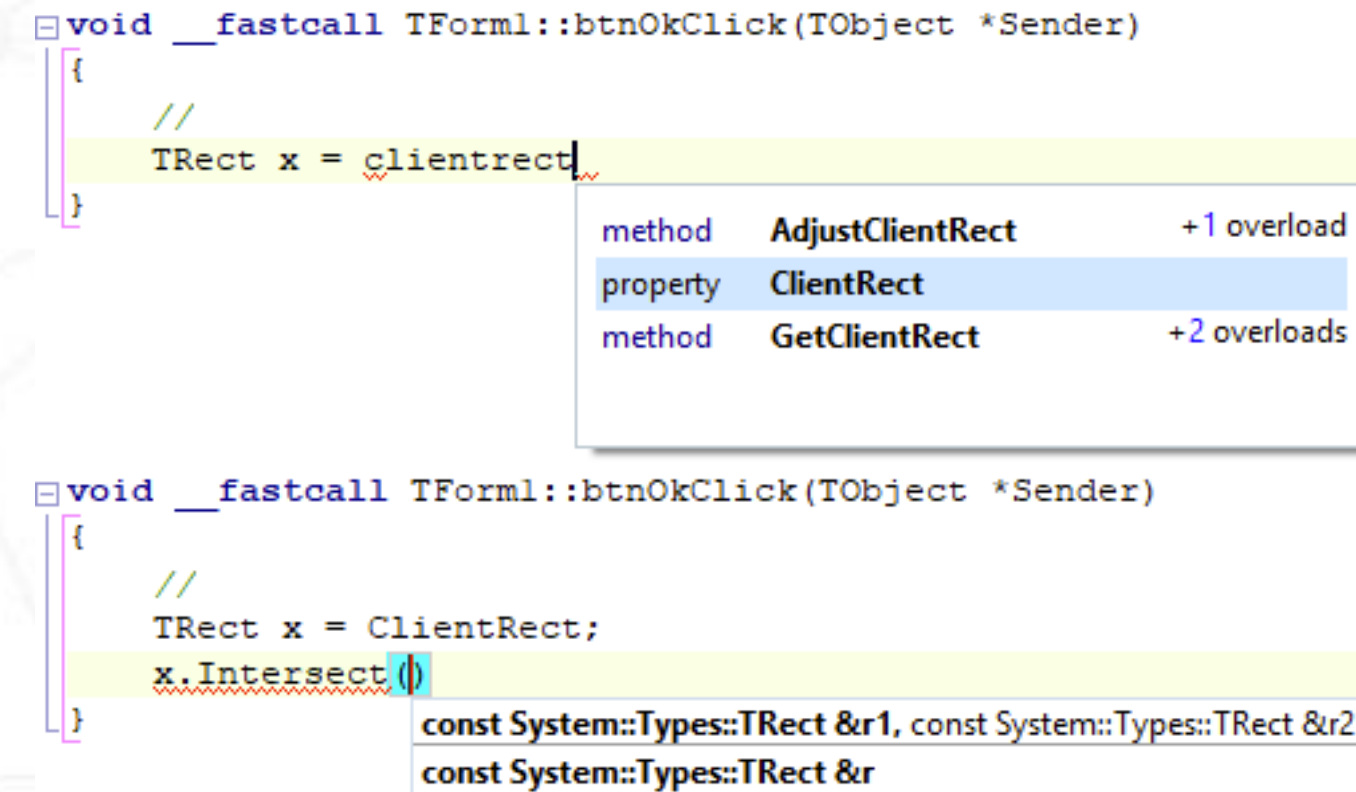
- A set of C++ libraries that significantly expand the C++ programming language using template meta programming
  - Templates are a core feature of C++, similar to generics in Delphi
  - Metaprogramming being compile-time execution (ish), complex code handled by the compiler not at runtime
- We provide support for a subset of Boost that has been fully tested and pre-configured specifically for C++Builder
- For both 32-bit and 64-bit Windows
- Up-to-date version (v1.68)
- Available for download via GetIt
- (Classic compiler Boost also available)



# C++ LSP Code Completion Improvements

*Key productivity features in the IDE are now available for the modern Clang-enhanced compiler*

- C++Builder 10.3.2 offers full featured Code Insight support for C++ with the Clang-enhanced compiler
- Improvements to code completion, including accuracy
- Adds new features such as Parameter Completion, Tooltip Insight and Go To Definition, providing feature parity between the classic and modern compilers
  - Significantly improves these features compared to the classic version by making them asynchronous and non-blocking
- Includes many performance and quality improvements



```

void __fastcall TForm1::btnOkClick(TObject *Sender)
{
    //
    TRect x = clientrect
}

void __fastcall TForm1::btnOkClick(TObject *Sender)
{
    //
    TRect x = ClientRect;
    x.Intersect()
}
    
```



## 10.3.2 Key Quality Enhancements

- Runtime Library Performance Enhancements
- Significant VCL quality improvements
- C++17 Quality (compiler, RTL, STL, and more)
- C++ code completion accuracy and functionality
- IDE UX Quality
- FireMonkey Platform Enhancements
- HTTP & REST Improvements
- FireDAC & Database

*10.3.2 addresses 400 publicly reported quality issues*

[http://docwiki.embarcadero.com/RADStudio/Rio/en/10.3\\_Rio\\_-\\_Release\\_2#Enhancements\\_included\\_in\\_10.3.2](http://docwiki.embarcadero.com/RADStudio/Rio/en/10.3_Rio_-_Release_2#Enhancements_included_in_10.3.2)

## 10.3.2 Installation

- Uses new and existing Update Subscription keys
- Installation and Add-Ons only available to customers current on Subscription
- Customers can import existing registry settings
- Both GetIt and InstallAware installers are available
  - As always, it is recommended that customers install the update release using the same installer technology they used previously

10.3.2 is available for all SKUs including Community Edition

<https://community.idera.com/developer-tools/b/blog/posts/temporary-10-3-2-getit-server-for-installing-10-3-2-add-on-packages>

## 10.3.2 Installation

- <https://community.idera.com/developer-tools/b/blog/posts/new-10-3-2-getit-installer>
- New 10.3.2 GetIt download
  - – Registered User CodeCentral link: <https://cc.embarcadero.com/item/30880>
  - – Regular CodeCentral link (does not require EDN login): <https://cc.embarcadero.com/item/30881>
  -
- ISO download (this points to the same ISO link provided in the workaround post)
  - – Registered User CodeCentral link: <https://cc.embarcadero.com/item/30883>
  - – Regular CodeCentral link (does not require EDN login): <https://cc.embarcadero.com/item/30882>



# Google Play Store Android 32-bit Extension for Delphi & C++Builder Customers



- Google's Play Store team is considering extensions to the 64-bit requirement for our Delphi and C++Builder customers on an app-by-app basis
- Starting August 1st, 2019, only app *updates* to existing Android 32-bit applications will be considered for an extension by the Google Play Store team, not *new* 32-bit Android applications.
  - Embarcadero customers can submit extension requests for Android 32-bit app *updates to existing* Google Play Store applications until August 2020
- For *new* Android 32-bit applications, it's recommended that you submit them as soon as possible and start [asking for an extension](#) now, so that you are not impacted by the deadline come August 1st

How to request an extension:

- Visit our blog post at <https://embt.co/32BitExtension> for steps

A Delphi Android 64-bit NDA Beta with Google Play Store deployment rights is planned for this summer\*

\* Features are not committed until completed and GA released

A faint, light gray background graphic consisting of a network of interconnected nodes and lines, resembling a molecular structure or a complex web, covering the right half of the slide.

# Questions?