

# Agenda

- 歡迎和簡介
- RAD XE8產品願景
- XE8的新功能
- 開發人員生產力
- Enterprise Mobility Services(EMS)
- InterBase XE7
- 結論和Q&A



# Embarcadero Technologies

**MORE THAN  
3 MILLION USERS  
WORLDWIDE**



**Application  
Development**



**Data Modeling &  
Architecture**



**Database  
Management &  
Optimization**

# Embarcadero Technologies

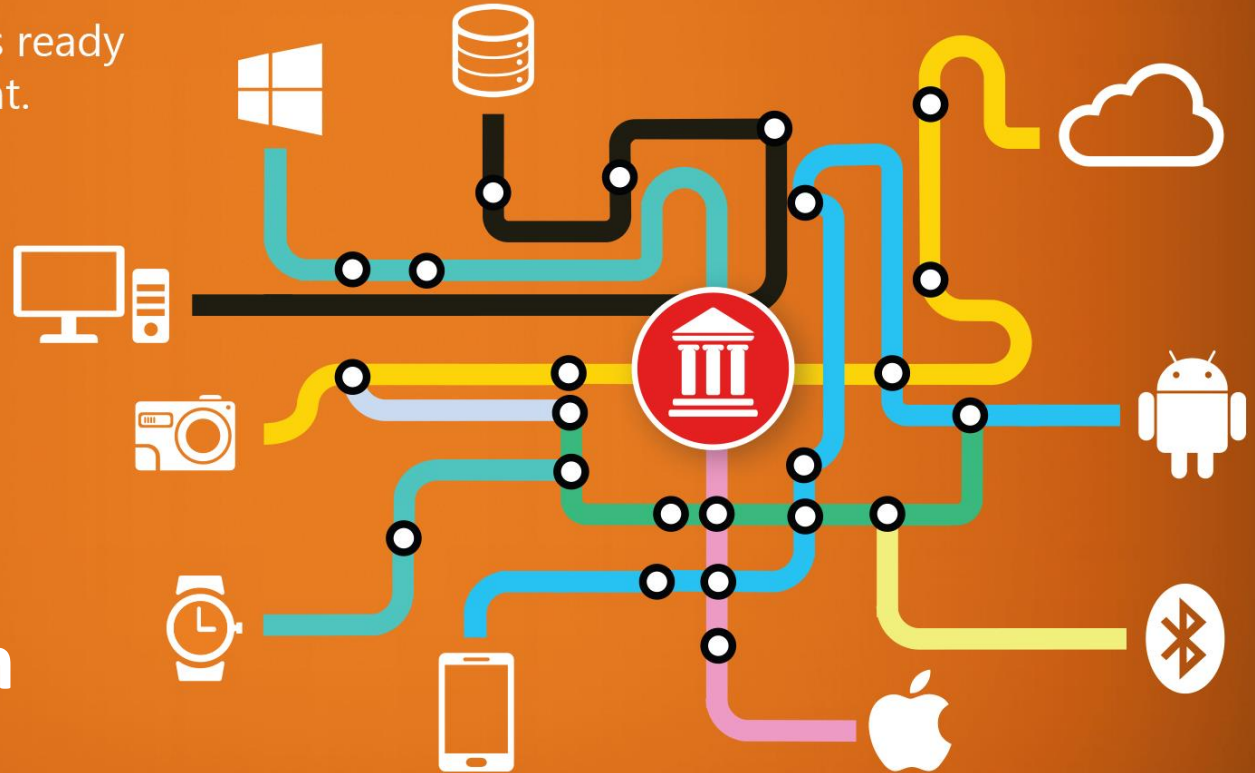
- Founded 1993
- 3.2 Million Customers - 97% of Fortune 2000
- 35+ Product Awards – Consistent Innovation
- 500+ Employees in 29 Countries



# RAD Studio XE8

Industrial strength, business ready  
connected app development.

**Product Vision**

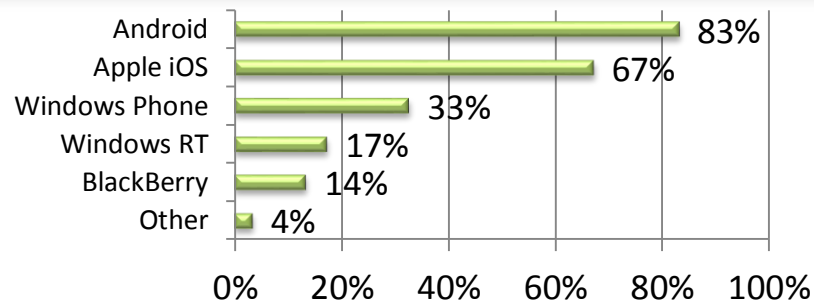


# Windows Developers: A Market View

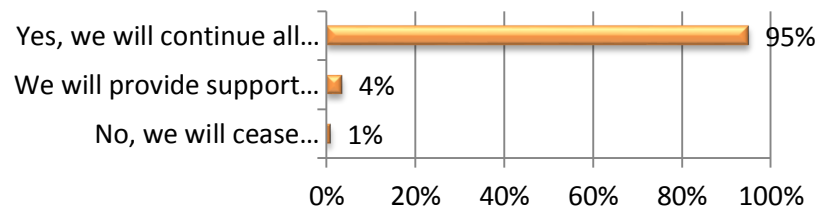
## Multi-Platform

- Need to get to mobile but also need to continue to support and extend Windows solutions
  - Are being asked to support both iOS and Android

What mobile platforms are most important for your users to have applications for? Choose all that apply.



If you deliver these mobile applications, will you still be required to develop and support your existing Windows applications?

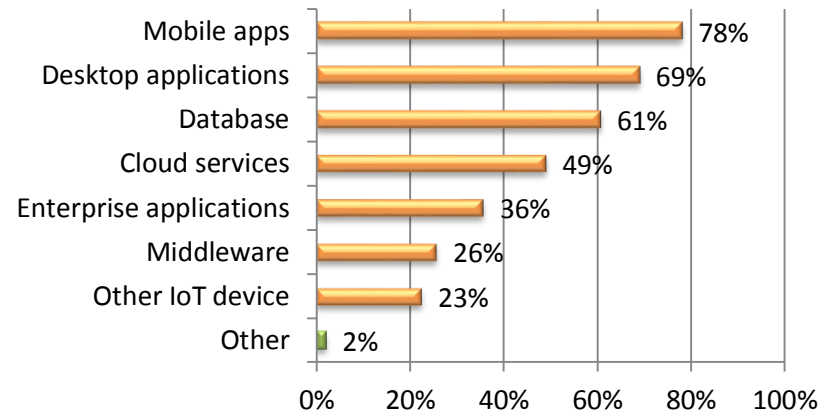


# Windows Developers: A Market View

## The Impact of Internet Of Things

- 2015 is the year IoT is being added to business apps
  - Apps with IoT also connect with many services
  - IoT is expected to have a business impact this year

What types of systems will be interconnected as part of your “Thing” solution?



# What is RAD Studio?

The Connected App Platform for Windows and Beyond

RAD development for Windows, Mac, iOS, and Android and IoT

Industrial strength. Business ready



# RAD Studio XE8: Enterprise Ready

Build industrial strength and business ready solutions





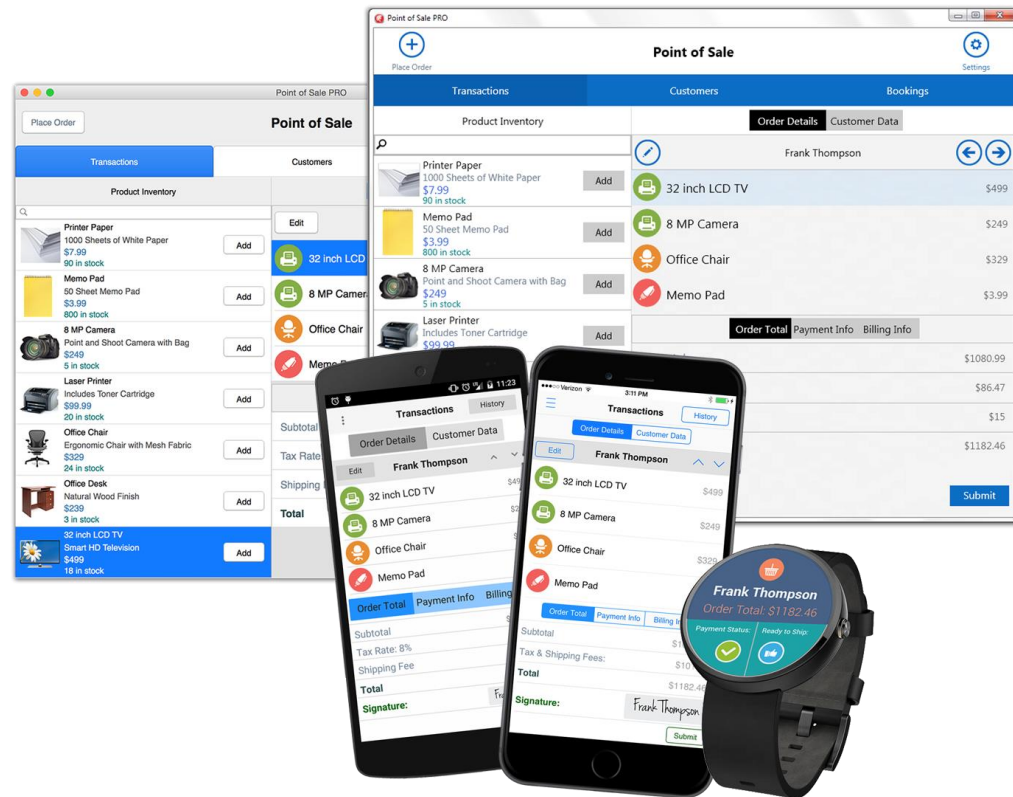
# RAD Studio XE8: Connected

Connect native client platforms, mobile extensions, smart devices, cloud services, Enterprise and embedded data.



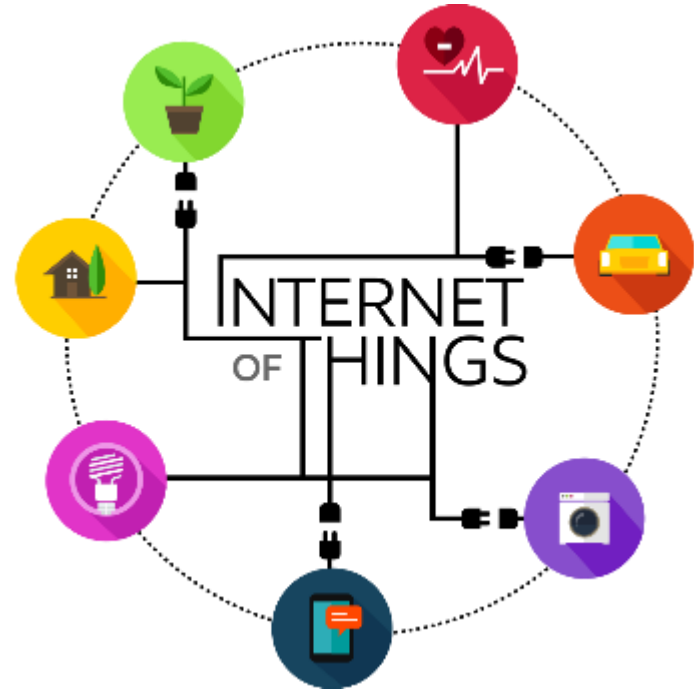
# RAD Studio XE8: MultiDevice

Deliver single-source  
user interfaces across  
multiple form factors  
with FireUI



# RAD Studio XE8: IoT Ready

Extend apps with new Internet of Things capabilities: proximity awareness, devices, and sensor data collection

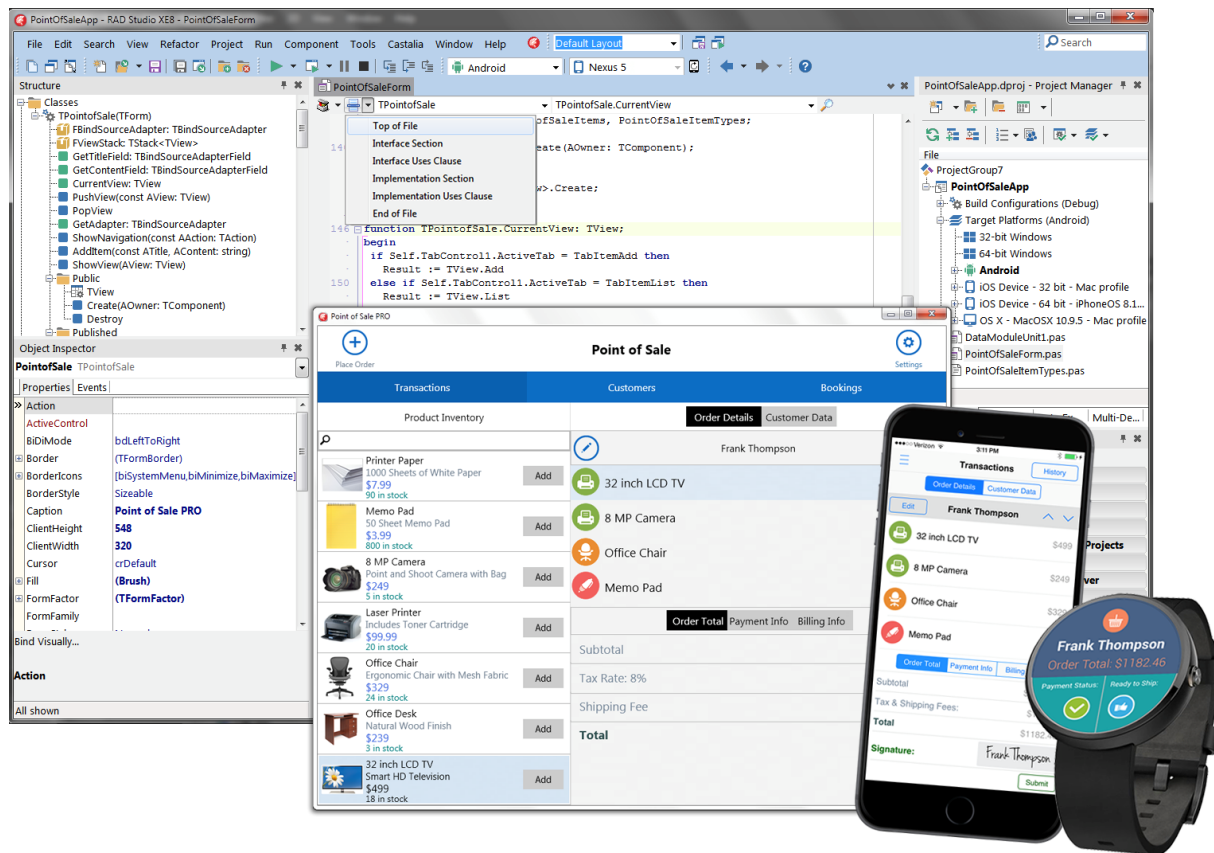


# RAD Studio XE8: EMS MiddleWare

Access and sync enterprise data and publish custom REST APIs with turn-key Enterprise Mobility Services



# RAD Studio XE8: For Developers





# RAD Studio

The Connected App Platform  
for Windows and Beyond

## What's New in RAD Studio XE8 Compilers and Libraries

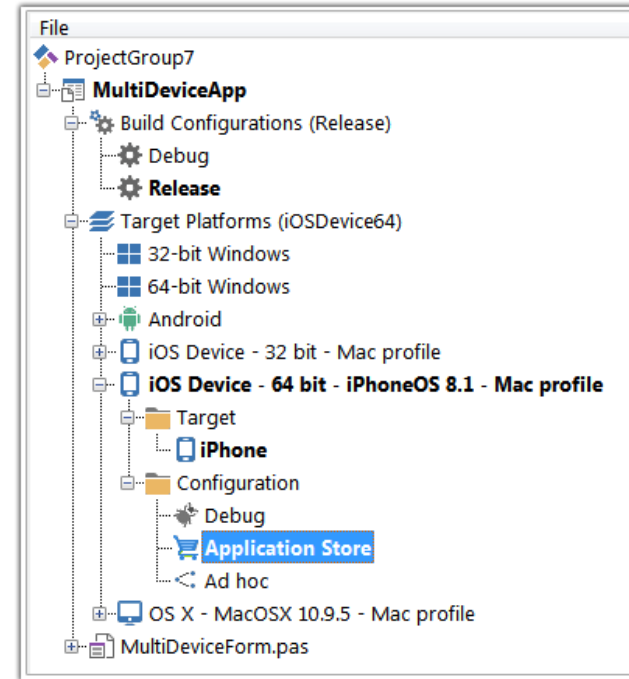
# RAD Studio XE8 Compilers and Toolchains

- Object Pascal and C++ Compilers
- Windows 32-bit and 64-bit
- Mac OS X
- Android ARM v7
- iOS Armv7, Arm 64-bit, and iOS Simulator (Object Pascal only)
- **Total: 7 OP and 6 C++ compilers**



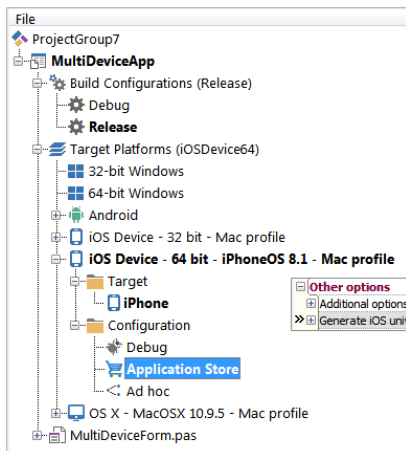
# New in XE8: iOS 64-bit Compiler and Toolchain

- New iOS 64bit Object Pascal and C++ Compilers
  - Including linkers and tools
  - Separate iOS 64 target
- Support for Apple Universal apps
  - Both binaries in single IPA
    - Required for App Store
  - 64bit target can embed 32bit binary

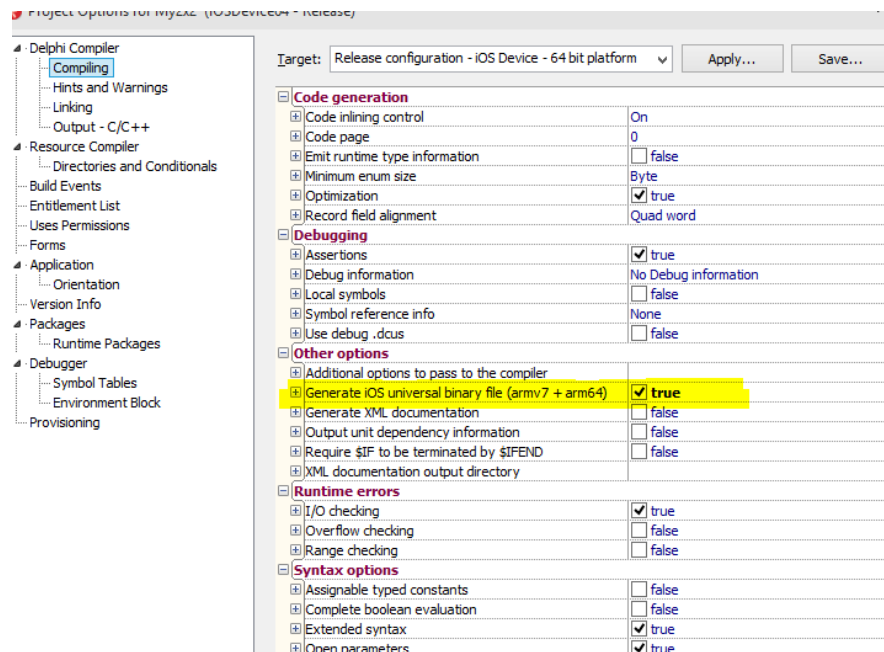
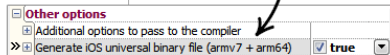




# iOS Universal Apps



Build universal iOS apps  
that run on 32-bit and  
64-bit devices



## Device Requirements

iOS Version  
7.0

Device Family  
iPhone / iPod Touch, iPad

Supported Architectures  
armv7, arm64

Required Capabilities  
armv7



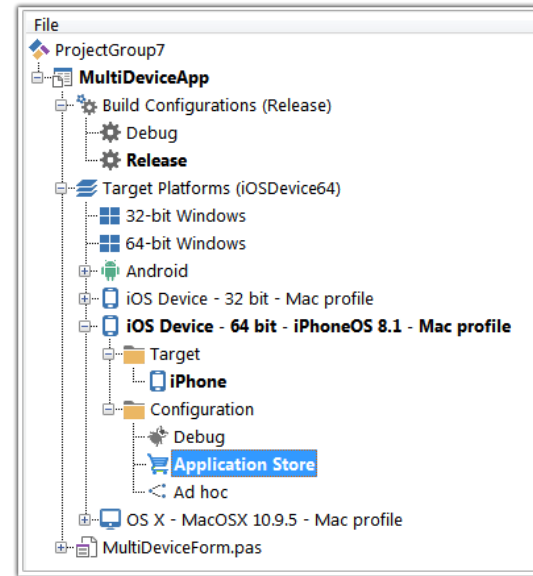
iTunes Connect Info

# Single Source iOS 32 and iOS 64

- Sounds obvious? Not so!
  - Lots of data types changes in Xcode ObjectiveC code
  - Xamarin C# code has two APIs (Classic and Unified)
- Only core change is LongInt is 64-bit on 64-bit mobile
  - And 32bit in 32bit mobile and Windows
- Pointers and references are 64-bit, of course
- Extra care needed if calling native libraries directly

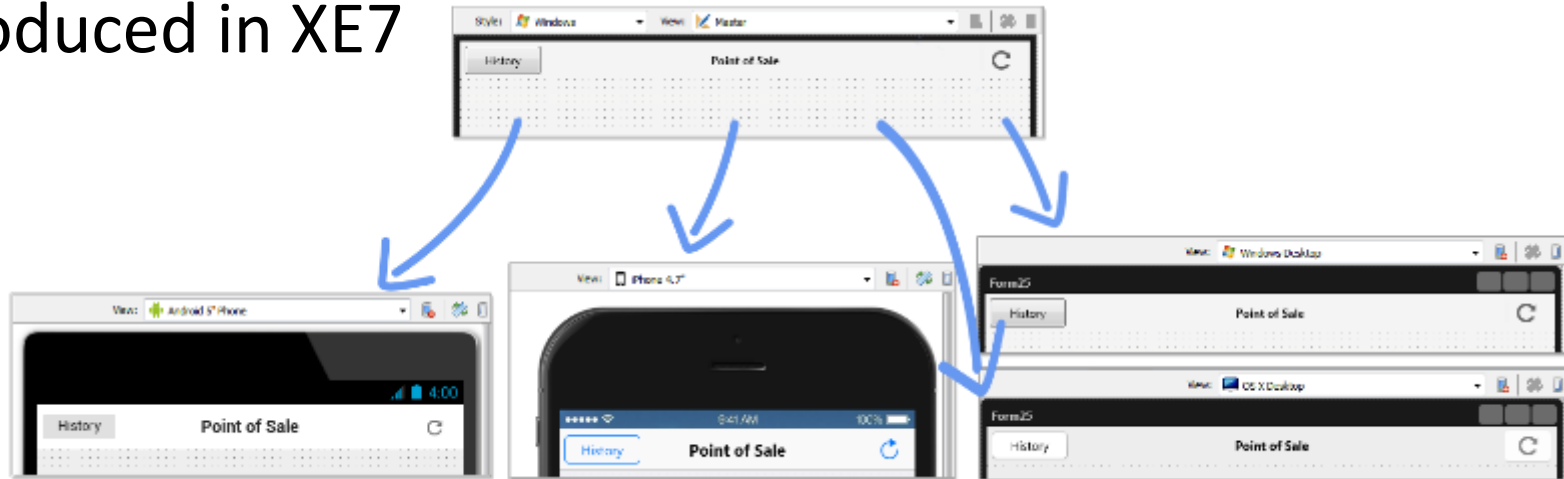
# The FireMonkey Platform

- Single-source multi-device architecture
  - Including user interface controls, which can be styled or platform native
  - Multiple compilers for the different platforms, all producing native code
- RAD, with a strong OOP architecture
- For Windows, OS X, Android, iOS



# FireUI Multi-Device Designer

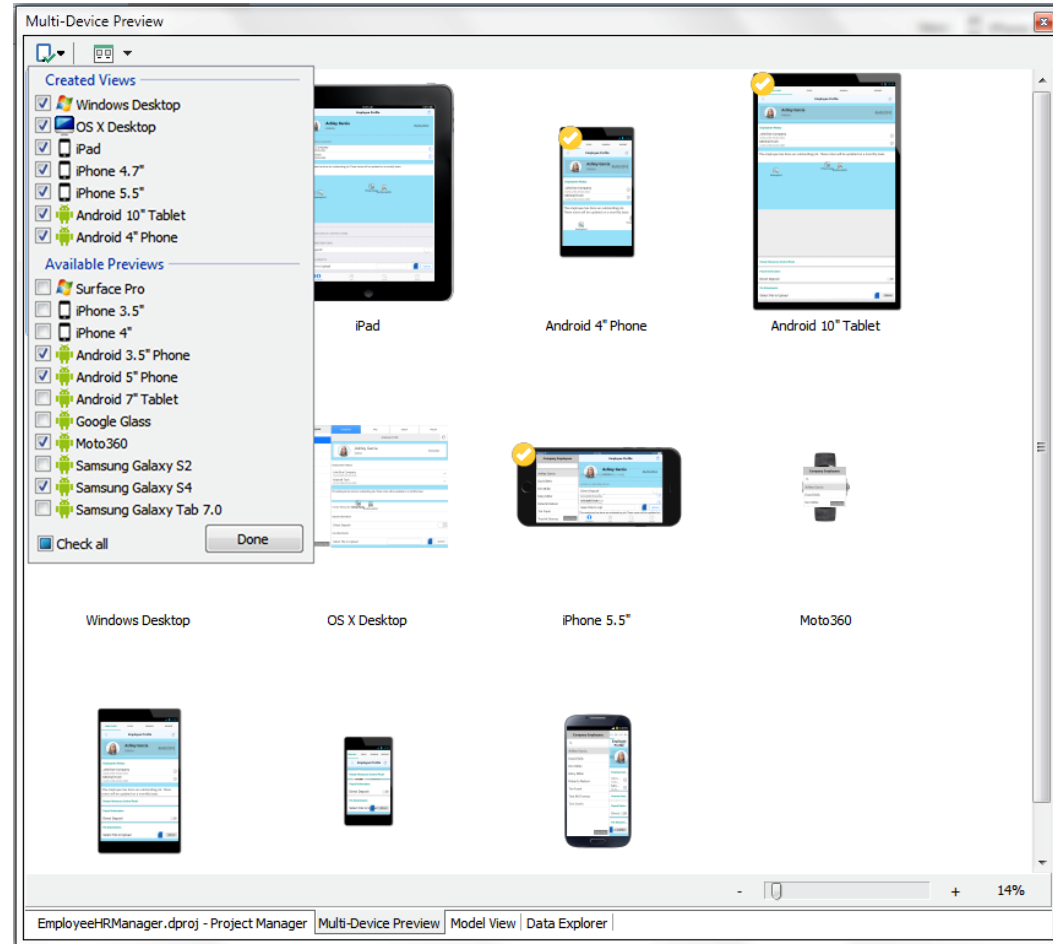
- Shared master and specific views
- Visually customize forms for different platforms and form factors
- Introduced in XE7



# FireUI in XE8

## Designer Preview

- Live Previews for mobile and desktop platforms
- Preview the UI on different form factors as you create it

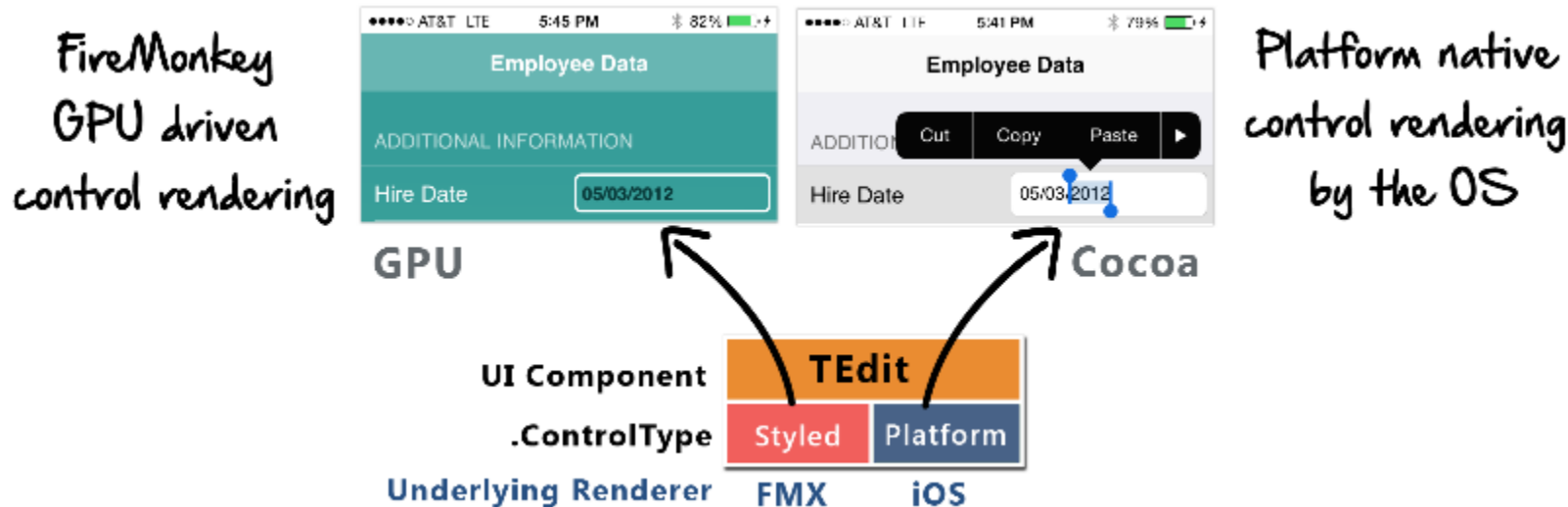


# FireMonkey New XE8 Mobile Features

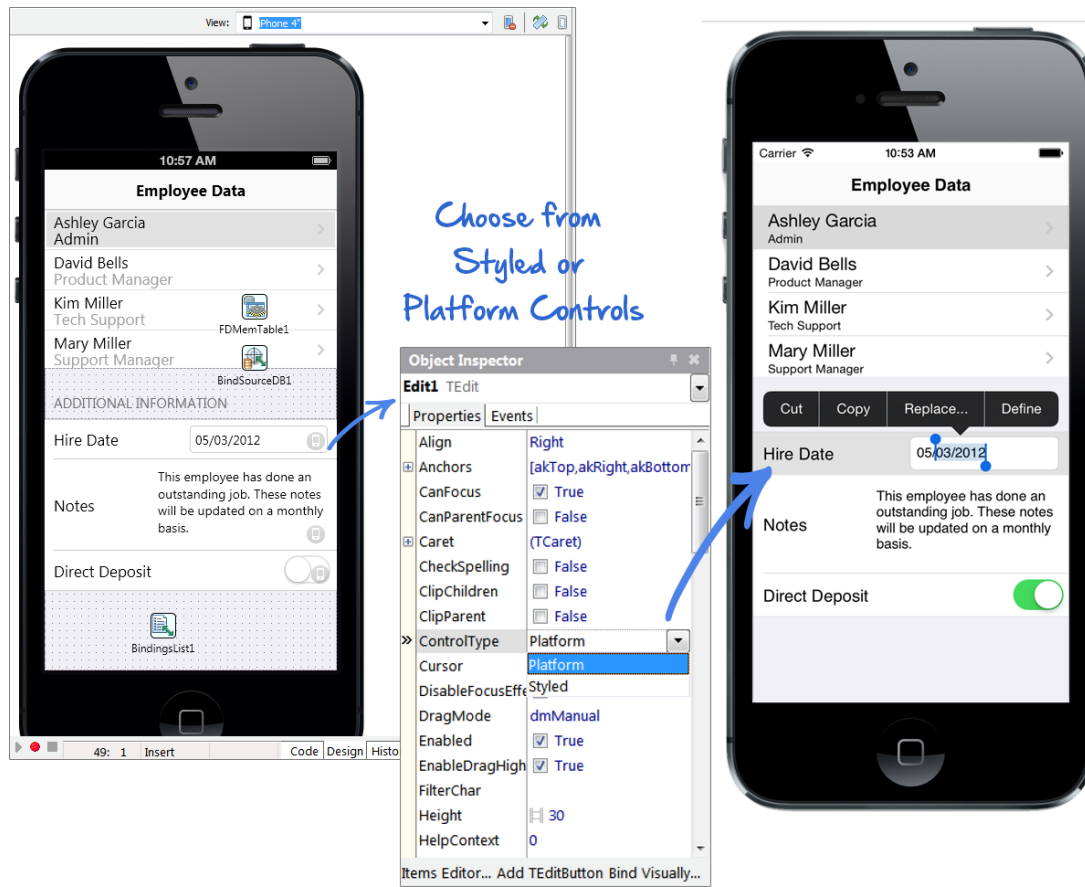
- New MapView component
  - Android Google Maps
  - iOS MapKit
- More iOS platform controls
  - TMemo, TListView, TSwitch (plus TEdit, TCalendar in XE7)
  - Z-order improvements mixing platform and styled control

# FireMonkey New XE8 Mobile Features

- FireMonkey Platform Native Rendering Architecture



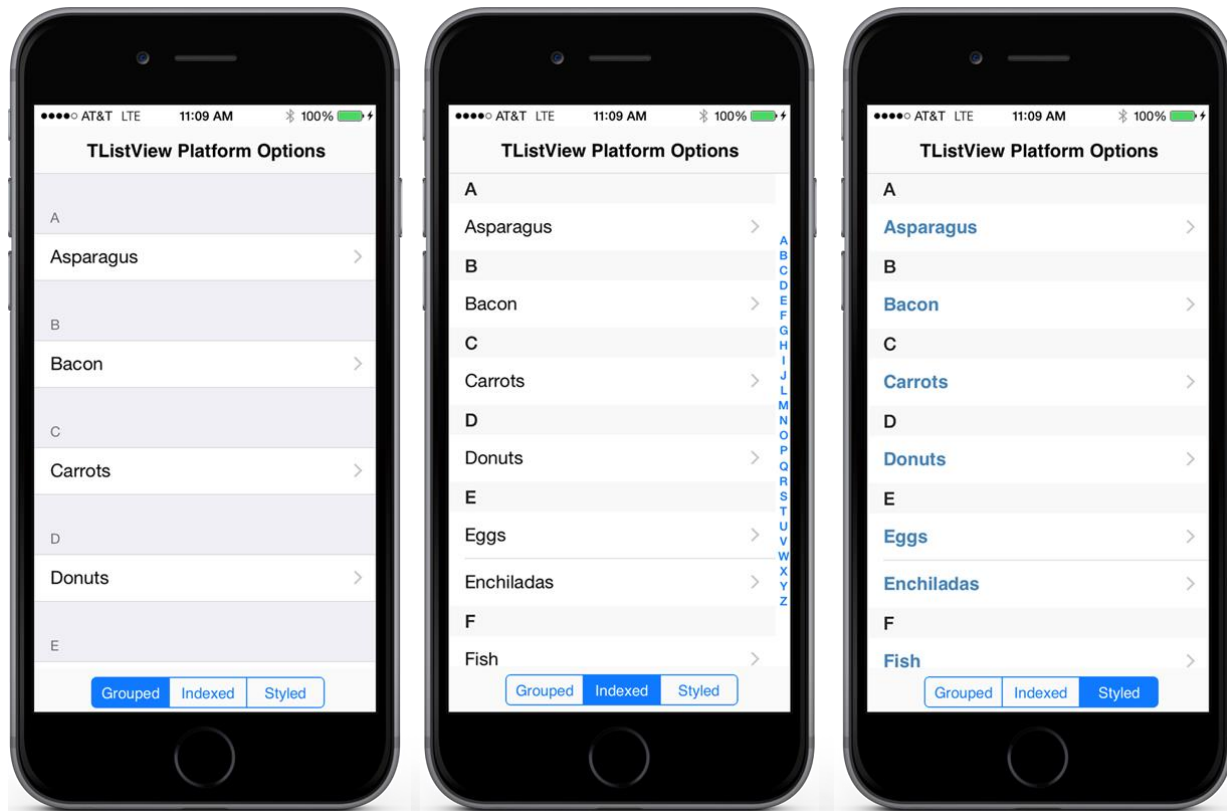
# iOS Platform Controls



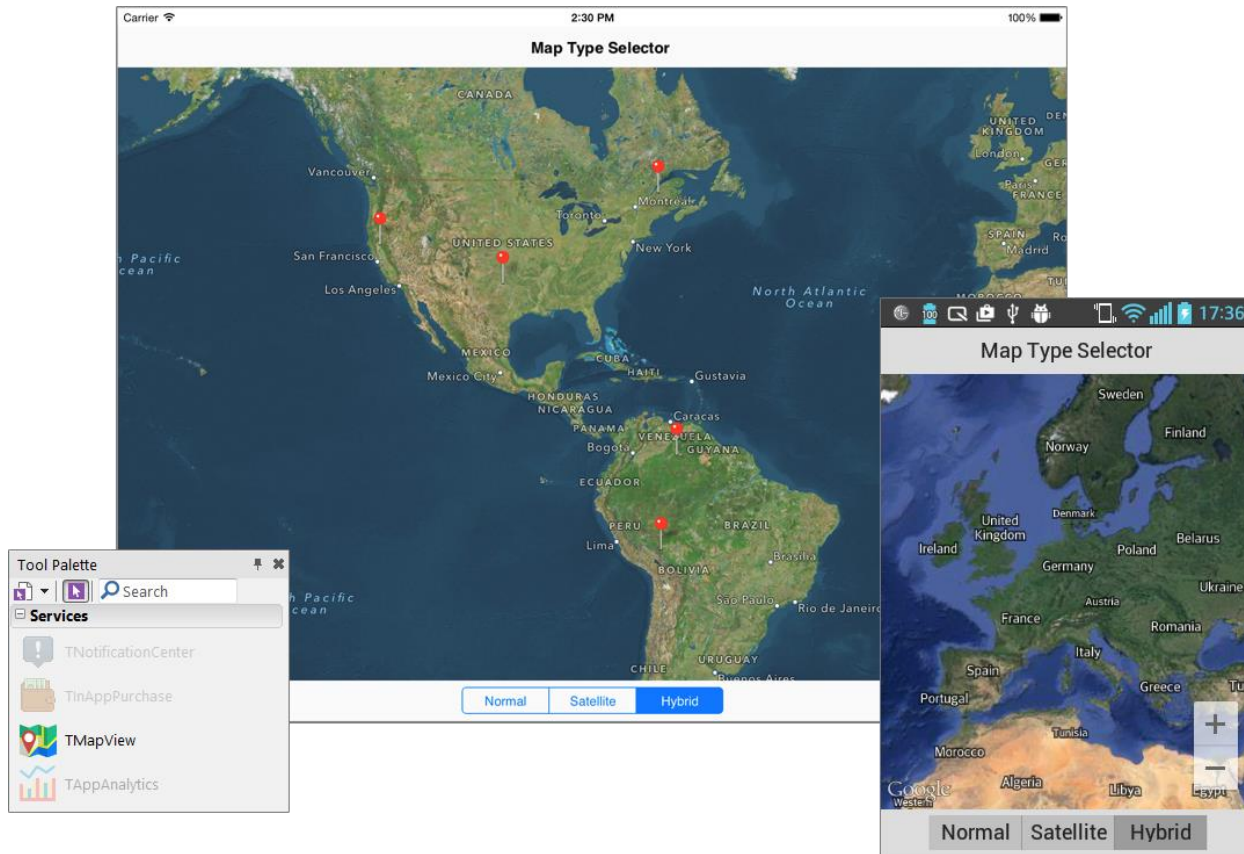


# iOS Platform TListView

- NativeOptions
  - Grouped
  - Indexed
  - Styled



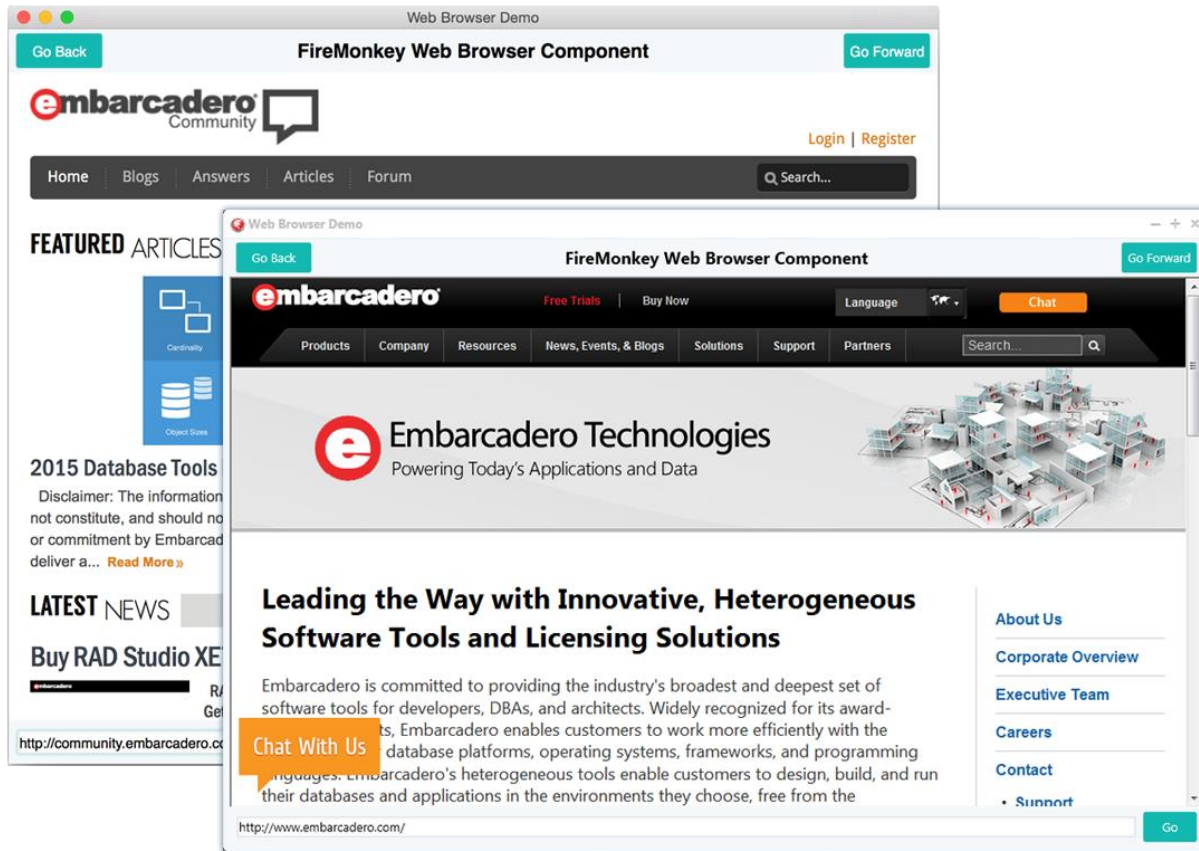
# MapView Component



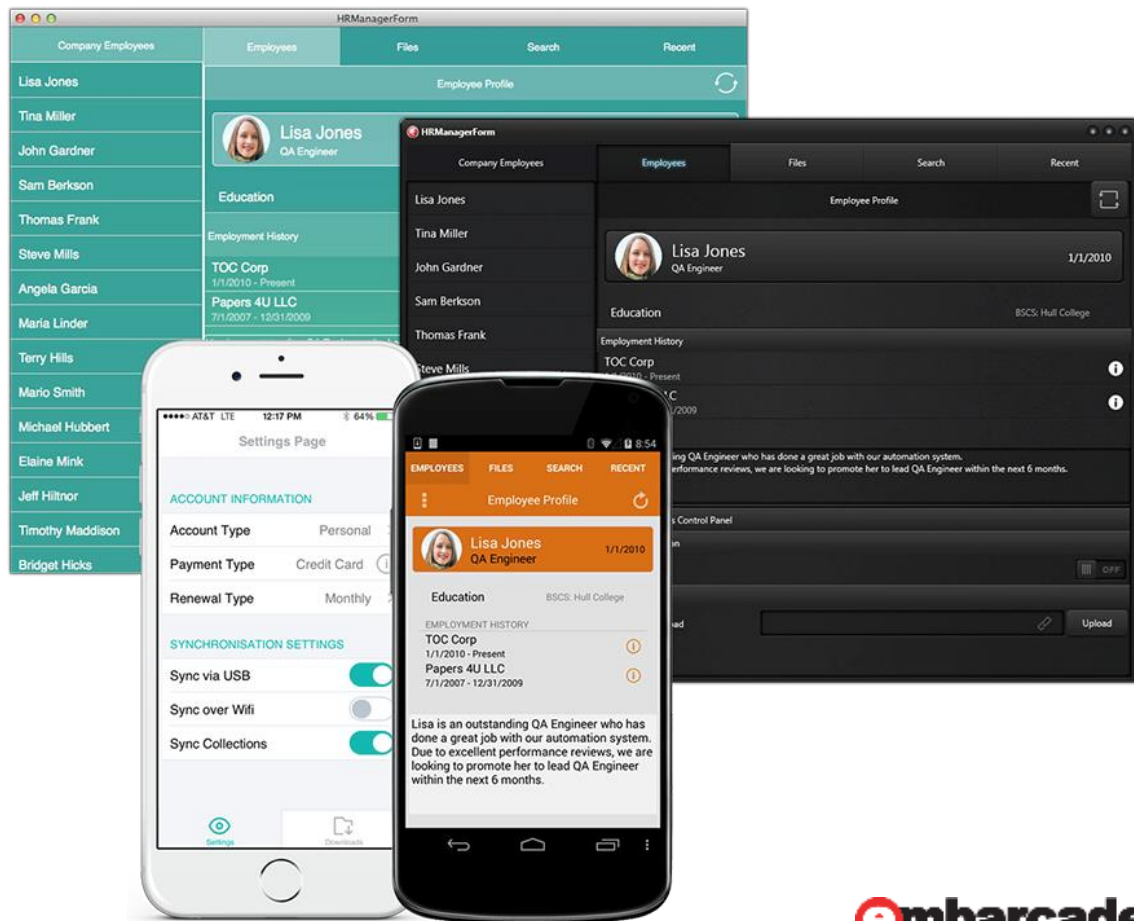
# Other FireMonkey XE8 Features

- Desktop browser components for Windows and OS X
  - Mapped to platform browser components
- New ImageList component
  - Desktop and mobile
- Enhanced multimedia and camera support

# Desktop FireMonkey Browser



# New Premium FireMonkey Styles



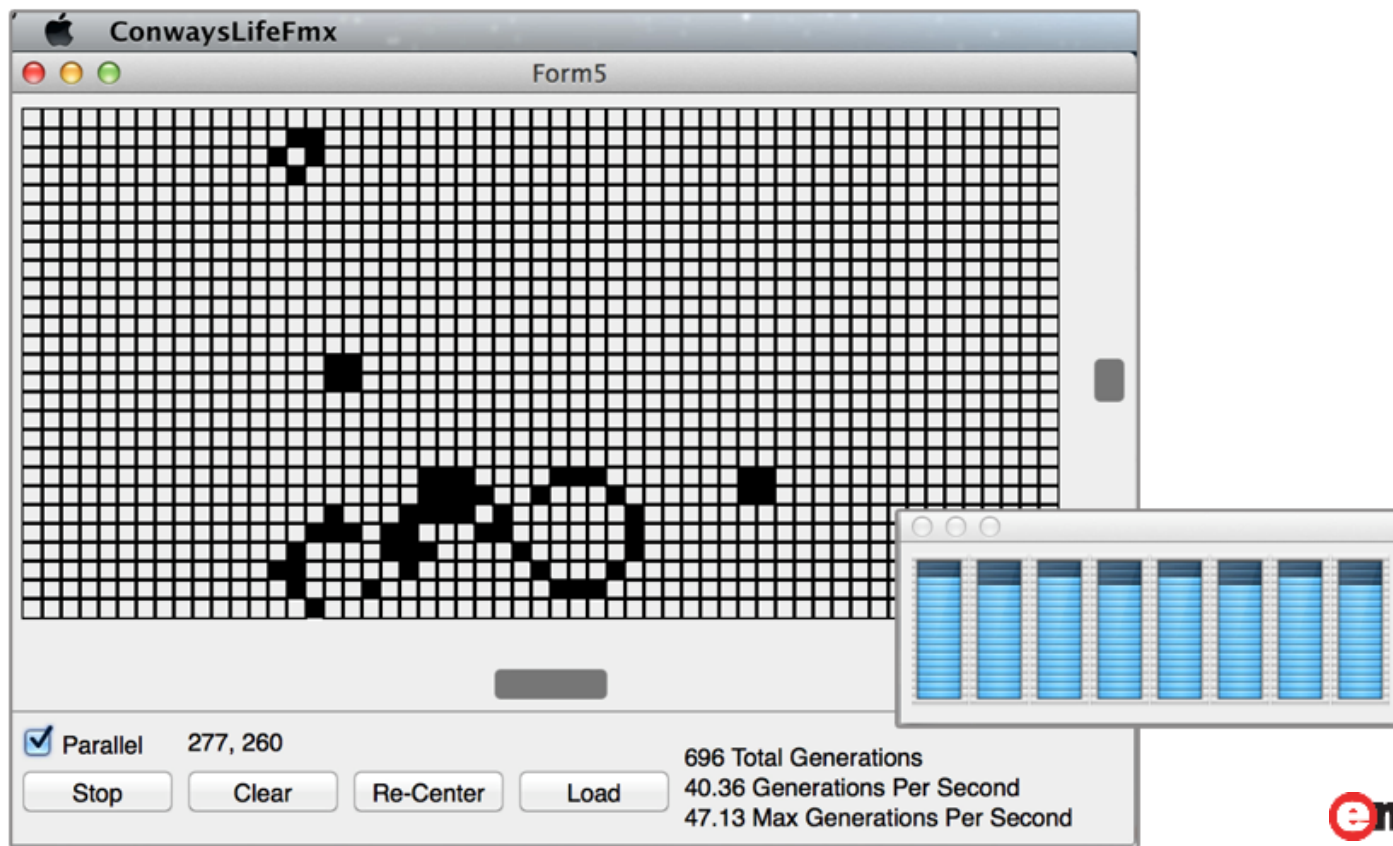
# The Run Time Library (RTL)



- Available for both VCL and FireMonkey
- Core runtime: memory management, files and streams, threads, encodings and formats...
- Hooks for platform specific API / SDK calls
- Introduced in XE7: Parallel Programming Library

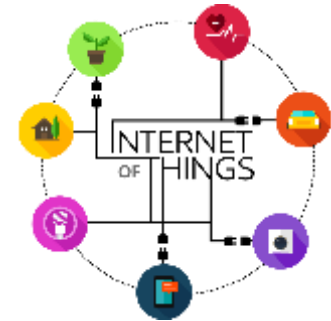
```
80 | TParallel.For(1, Max, procedure (I: Int64)
   | - begin
   | -     if IsPrime (I) then
   | -         TInterlocked.Increment (Tot);
   | - end);
```

# XE7 Parallel Library



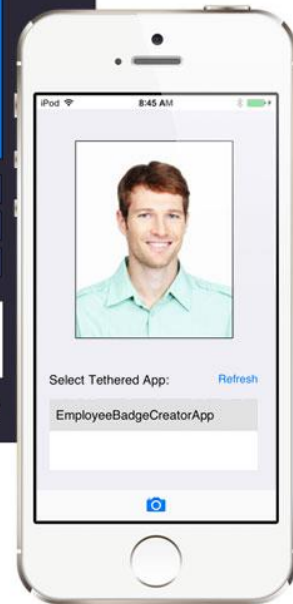
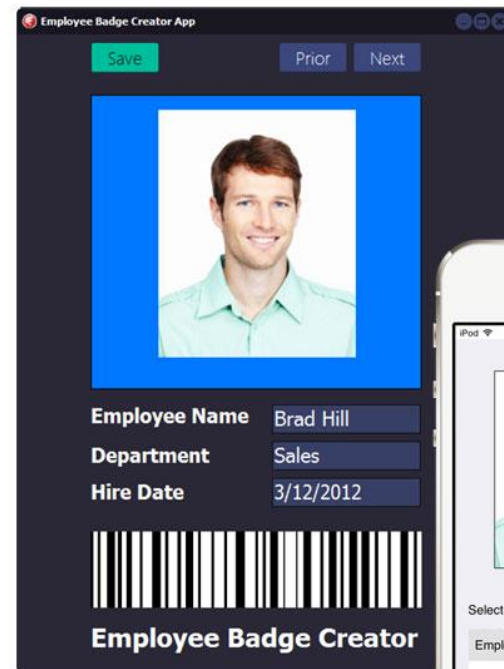
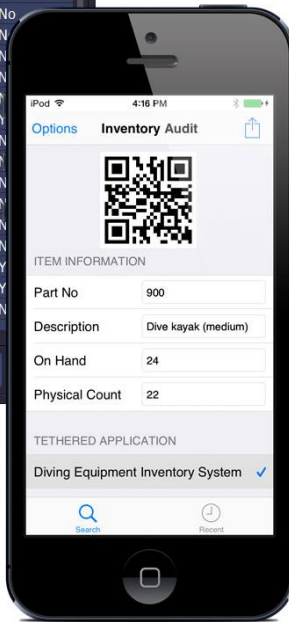
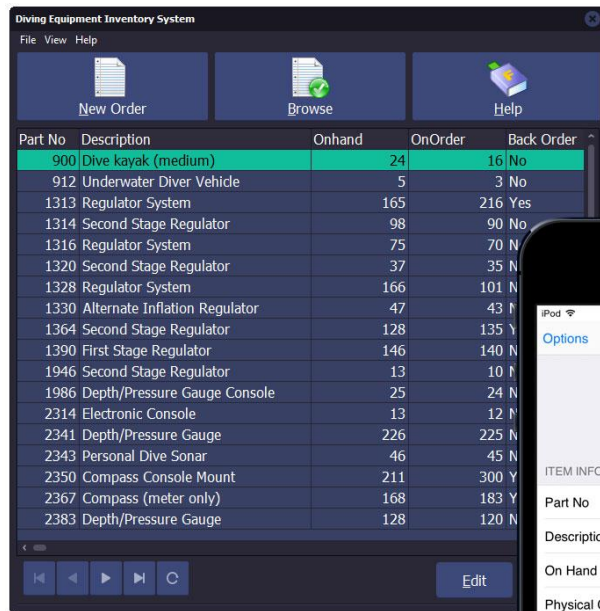
# RTL Connectivity and IoT in XE8

- AppTethering
  - Protocol enhancements and encryption hooks
- TBluetooth component
  - Matching existing TBluetoothLE component





# AppTethering: Bridge VCL and Mobile



# New: Proximity with Beacons



View: Android 5" Phone

Near Your Location

- Pizza & Breadsticks ✓
- Ice Cream Shack ✓
- Stadium Barista ✓
- Drinks & More ✓

Welcome to the Stadium Navigator

You are currently in Section 220

Beacon1

Built-in support for iBeacons and AltBeacons

Object Inspector

Beacon1 TBeacon

Properties Events

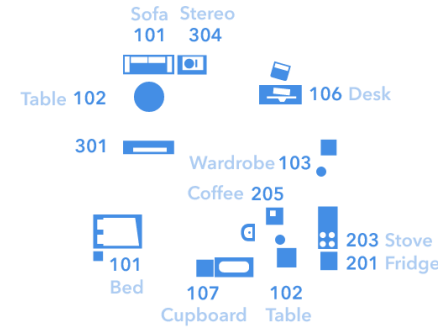
BeaconDeathTime	20
CalcMode	Stabilized
Enabled	<input type="checkbox"/> False
Mode	Standard
MonitorizedRegions	(TBeaconRegionCollection)
Name	Beacon1
ScanningSleepingTime	250
ScanningTime	500
SPC	0.5
Tag	0

BeaconDeathTime

All shown

# What Do Beacons Do?

- A Beacon provides proximity and identification information
  - Informs a mobile app how close it is (signal strength)
  - Provides identification information (UUID, Major ID, & Minor ID)
- Two main standards
  - iBeacons (Apple)
  - AltBeacons



**UUID** **Major ID** **Minor ID**

AA6062F0-98CA-4211-8EC4-193EB73CEBE6

# What Can You Do with Beacons?

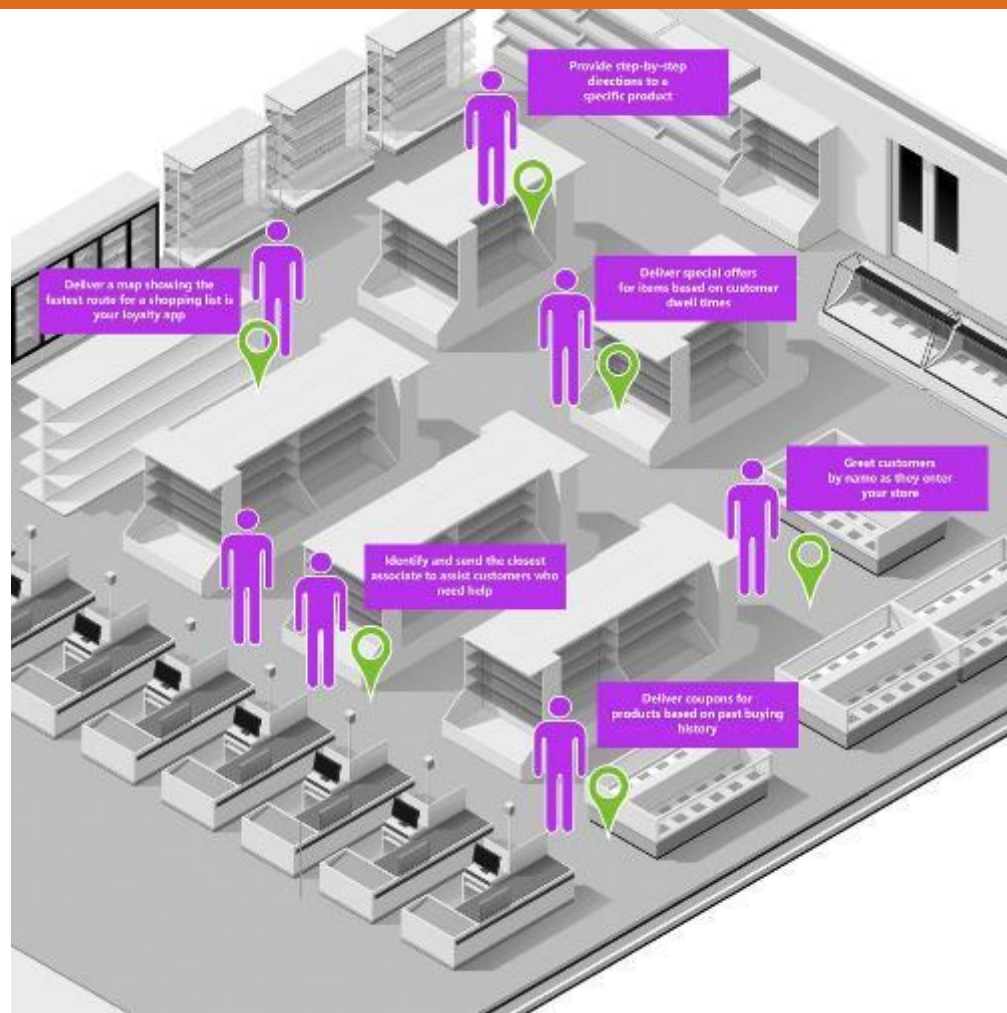
- Your “proximity” app can:
  - Find nearby beacons
    - Determine how close it is to a beacon
  - Know the identify of the beacon
    - UUID, Major, Minor
  - Enter/exit a beacon range
    - Limited to BLE signal distance
  - Take some action based on “seeing” the beacon



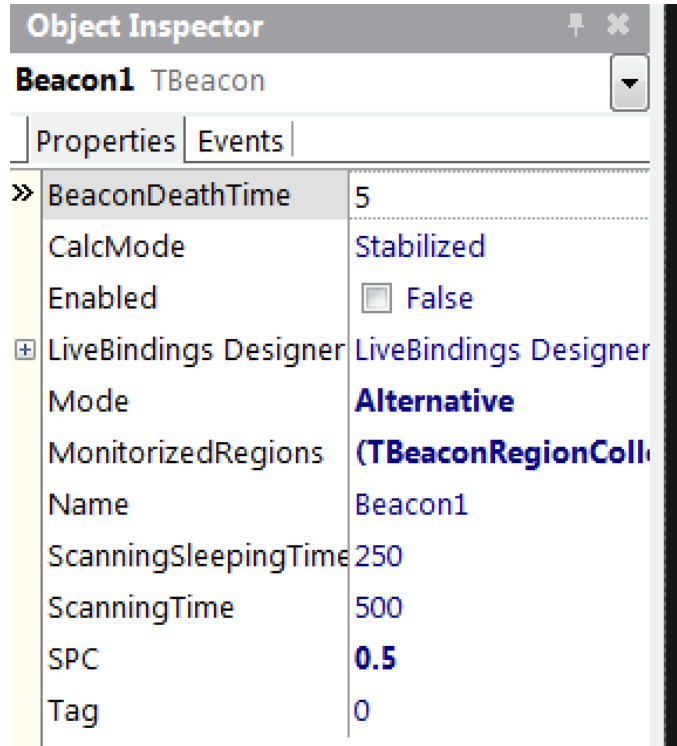
# Sample Retail Use Case

## THE MPACT ADVANTAGE

- ▶ MORE SAVINGS FOR YOUR SHOPPERS
- ▶ BIGGER BASKETS
- ▶ MORE REVENUE
- ▶ A BETTER SHOPPING EXPERIENCE
- ▶ MORE RETURN VISITS
- ▶ INCREASED LOYALTY



# The TBeacon Component



- Supports iOS, Android, and OS X
- iBeacons and AltBeacons standards
- Use events to receive information

# Add Physics with Box2D

- Library distributed with C++
  - <http://box2d.org/>
- Object Pascal headers and ready-to-use demos
- Add physics to your desktop and mobile applications
  - Great for games, but not only



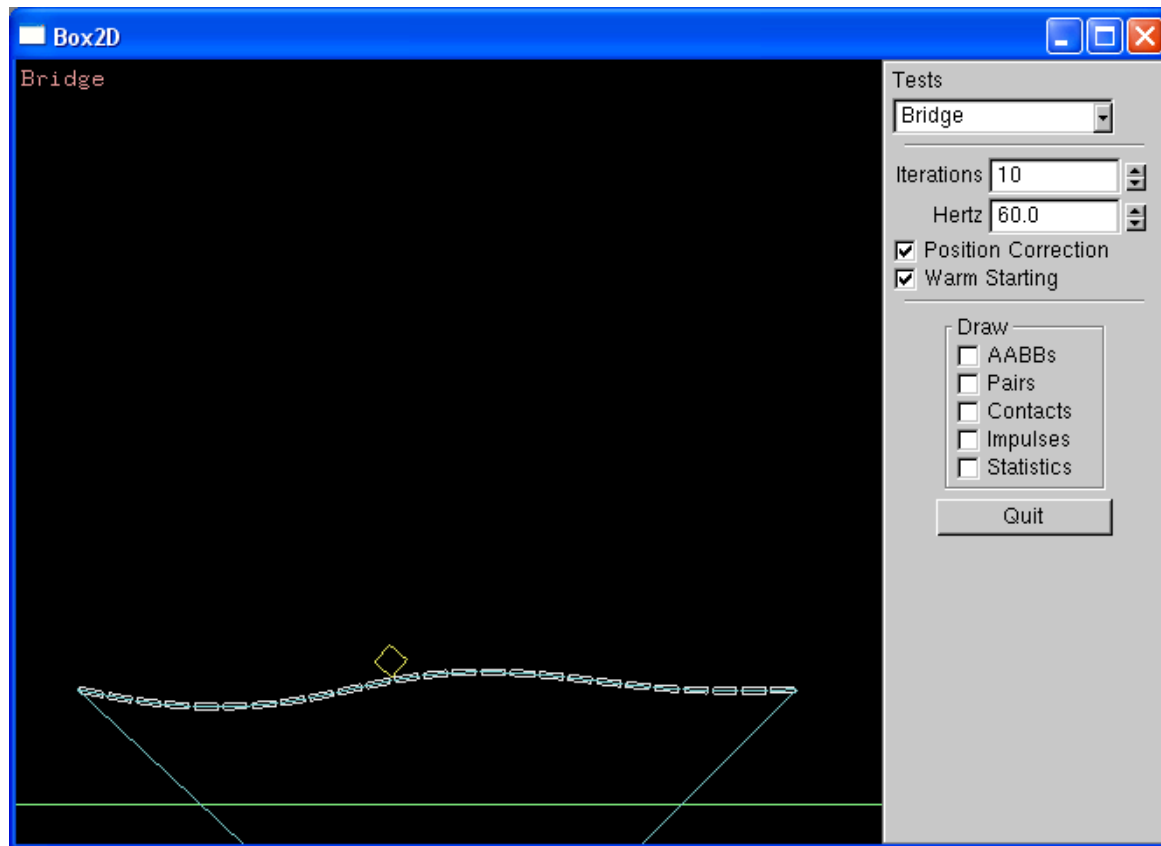
# Box2D Concepts



- 2D rigid body physics engine
- Collision
  - Continuous collision detection, convex polygons, multiple shapes per body, one-shot contact..
- Physics
  - Continuous physics with time, body-joint-contact graph, contact, friction and restitution, many joint types, motors and friction, reaction to forces/impulses



# Box2D Testbed



# HTTP and HTTPS Clients

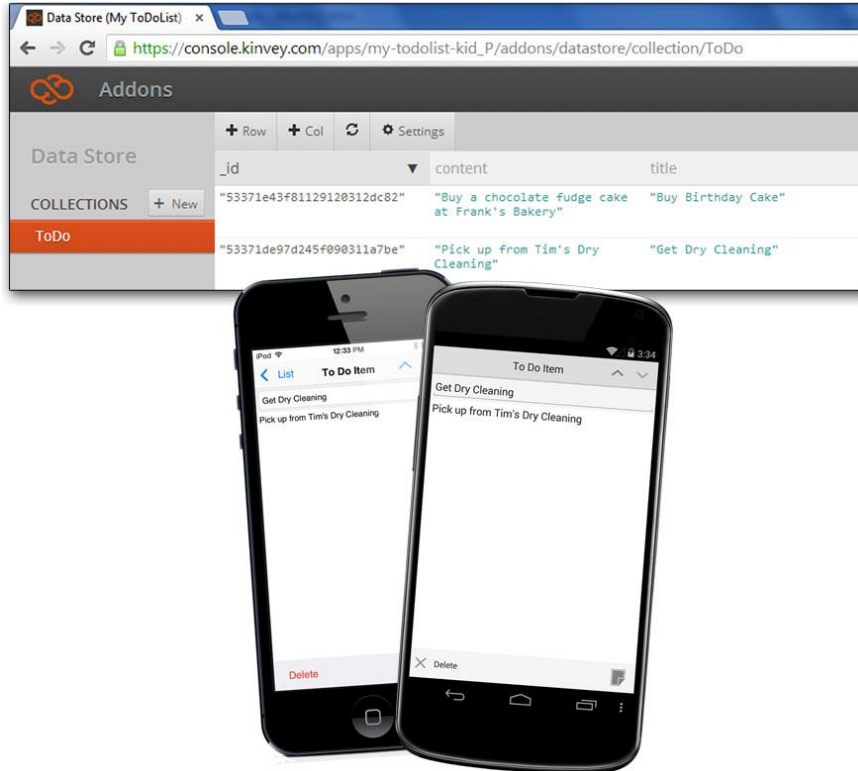
- Indy TIdHTTP works on all platforms
  - Requires OpenSSL distribution on iOS and Windows
  - Your application distributes security bits
- Platform native APIs
  - Security layer by OS vendor
  - Nothing to distribute with your app
  - Four different APIs... until XE8!



# HTTP Client Library

- Platform native HTTP and HTTPS support
  - Uses platform SDK services on each platform
  - Hassle-free deployment, relies on platform security
    - Rather than OpenSSL
  - For Windows, Mac, iOS, Android
  - Works also in VCL!
- NetHTTPClient and NetHTTPRequest components
  - System.Hash with hash functions for HTTP

# REST and BaaS Libraries Use HTTP Client Library

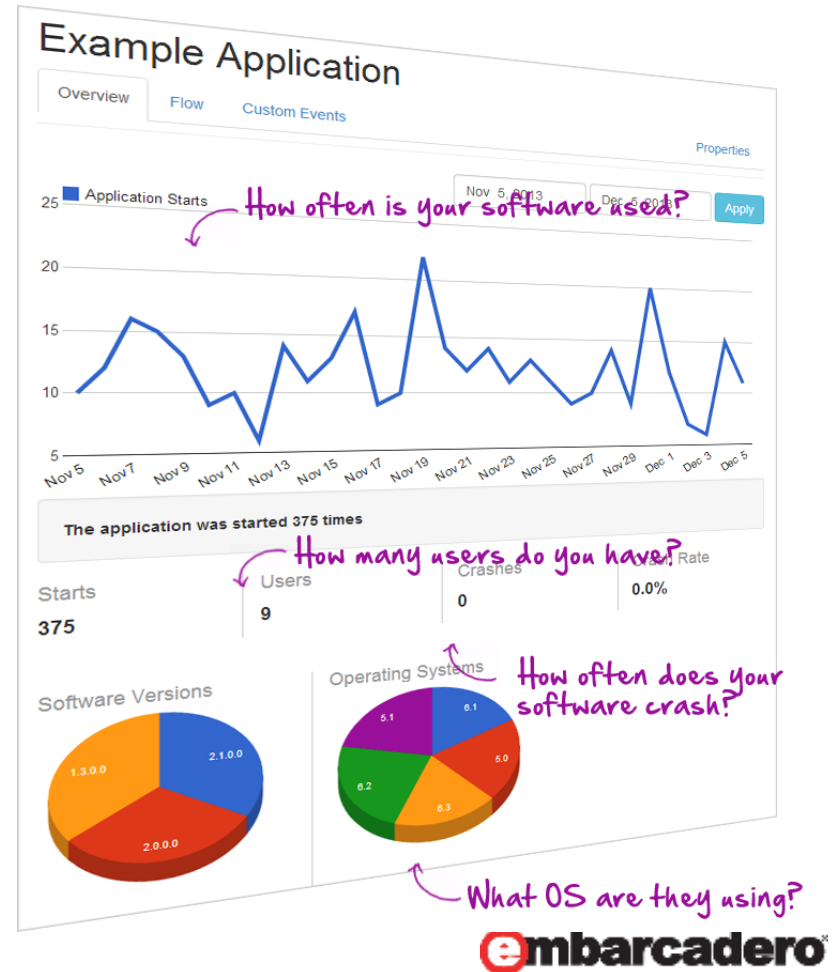


REST Client library  
remapped in XE8  
from IdHHTTP to HTTP  
Client Library

BaaS framework uses  
REST Client Library

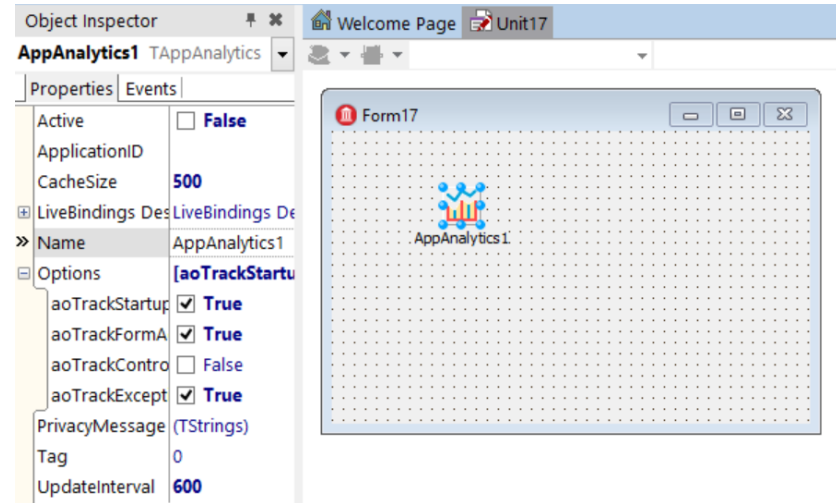
# AppAnalytics

- Capture anonymous usage stats from your customers, understand users behavior
  - No tracking of user data
  - Used also by RAD Studio IDE
- Hosted by Embarcadero as pay-per-use service (SaaS)
  - [appanalytics.embarcadero.com](https://appanalytics.embarcadero.com)



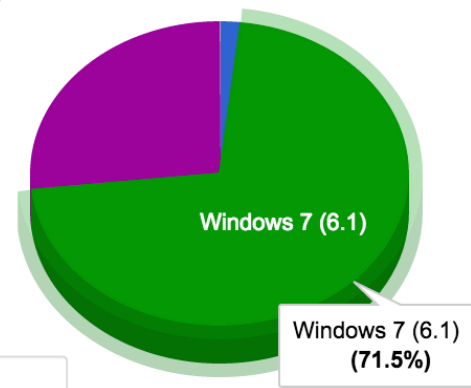
# TAppAnalytics Component(s)

- VCL and FireMonkey
  - Same component name, different implementations
- Captures application startup, form activation, exceptions, controls focus
- Developer can add custom events of any type and group them

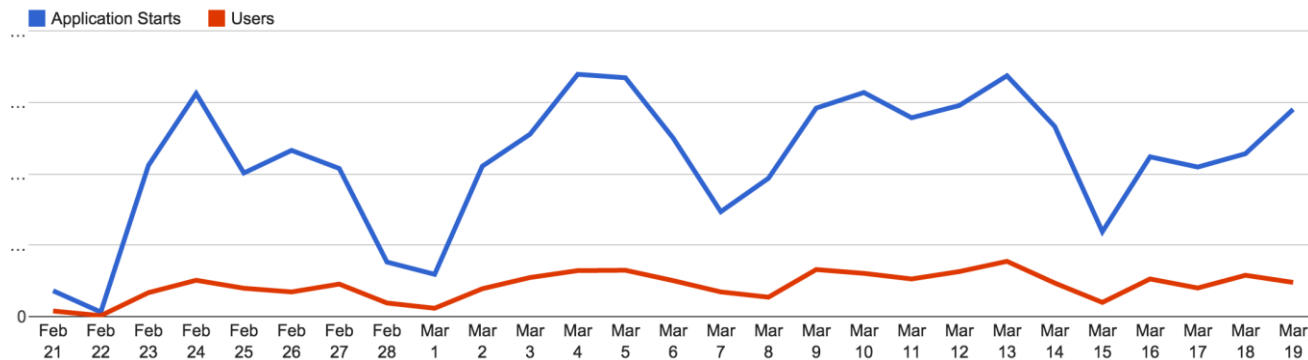


# AppAnalytics Sample Data

## Operating Systems

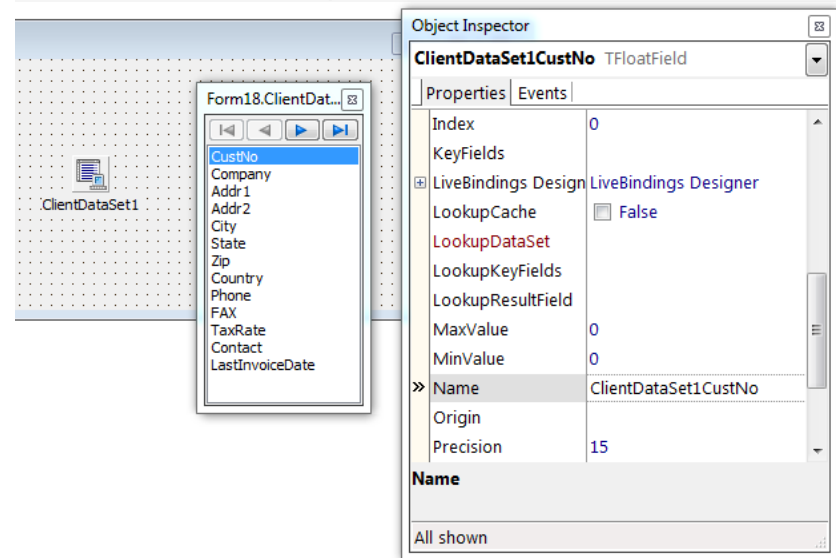


Feb 21, 2015 - Mar 20, 2015



# What's new in Database RTL

- TField read/write performance optimization
  - For all TDataset descendants
  - Customer reported 25% increase in ClientDataSet performance compared to XE7





# What is FireDAC?



- High-performance, easy-to-use, enterprise database connectivity
- Universal data access with database specific features
- No drivers required and full source code provided (in Enterprise edition)

**Database applications development  
is fun again with FireDAC**

# FireDAC Connections

The image displays two windows from the FireDAC Explorer application.

**Left Window: FireDAC Explorer - C:\Users\Public\Documents\Embarcadero\Studio\FireDAC\FDConnectionDefs.ini**

This window shows a table named 'country (R/O)'. The table has the following columns: Name, Capital, Continent, Area, and Population. The data is as follows:

Name	Capital	Continent	Area	Population
Argentina	Buenos Aires	South America	2777815	32300003
Bolivia	La Paz	South America	1098575	7300000
Brazil	Brasilia	South America	8511196	150400000
Canada	Ottawa	North America	9976147	26500000
Chile	Santiago	South America	756943	13200000
Colombia	Bagota	South America	1138907	33000000
Cuba	Havana	North America	114524	10600000
Ecuador	Quito	South America	455502	10600000
El Salvador	San Salvador	North America	20865	5300000
Guyana	Georgetown	South America	214969	800000
Jamaica	Kingston	North America	11424	2500000
Mexico	Mexico City	North America	1967180	88600000
Nicaragua	Managua	North America	139000	3900000
Paraguay	Asuncion	South America	406576	4660000
Peru	Lima	South America	1285215	21600000
United States of America	Washington	North America	9363130	249200000
Uruguay	Montevideo	South America	176140	3002000
Venezuela	Caracas	South America	912047	19700000

**Right Window: FireDAC Explorer - C:\Program Files (x86)\Embarcadero\Studio\16.0\bin\FDExplorer.ini**

This window shows the 'ConnectionDef1' dialog box. The 'Driver ID' is set to 'IDBX'. The 'Parameter' list includes:

- DriverID: IDBX
- ASA: DB2
- DS: FB
- Pooled: IB
- Database: IBLibite
- User\_Name: Infx
- MSAcc: MSSQL
- Password: MySQL
- MonitorBy: ODBC
- ODBCAdvanced: Ora
- PG: PG
- LoginTimeout: SQLite
- TDdata: IDBX
- Server: IDBX
- Network:
- Address:
- OSAuthent:
- MARS: Yes
- Workstation: Yes
- Language:
- Encrypt:
- VariantFormat: String
- ExtendedMetadata: False

The status bar at the bottom indicates 'modified' and 'Version: 22.0.18477'.

# What's New in FireDAC

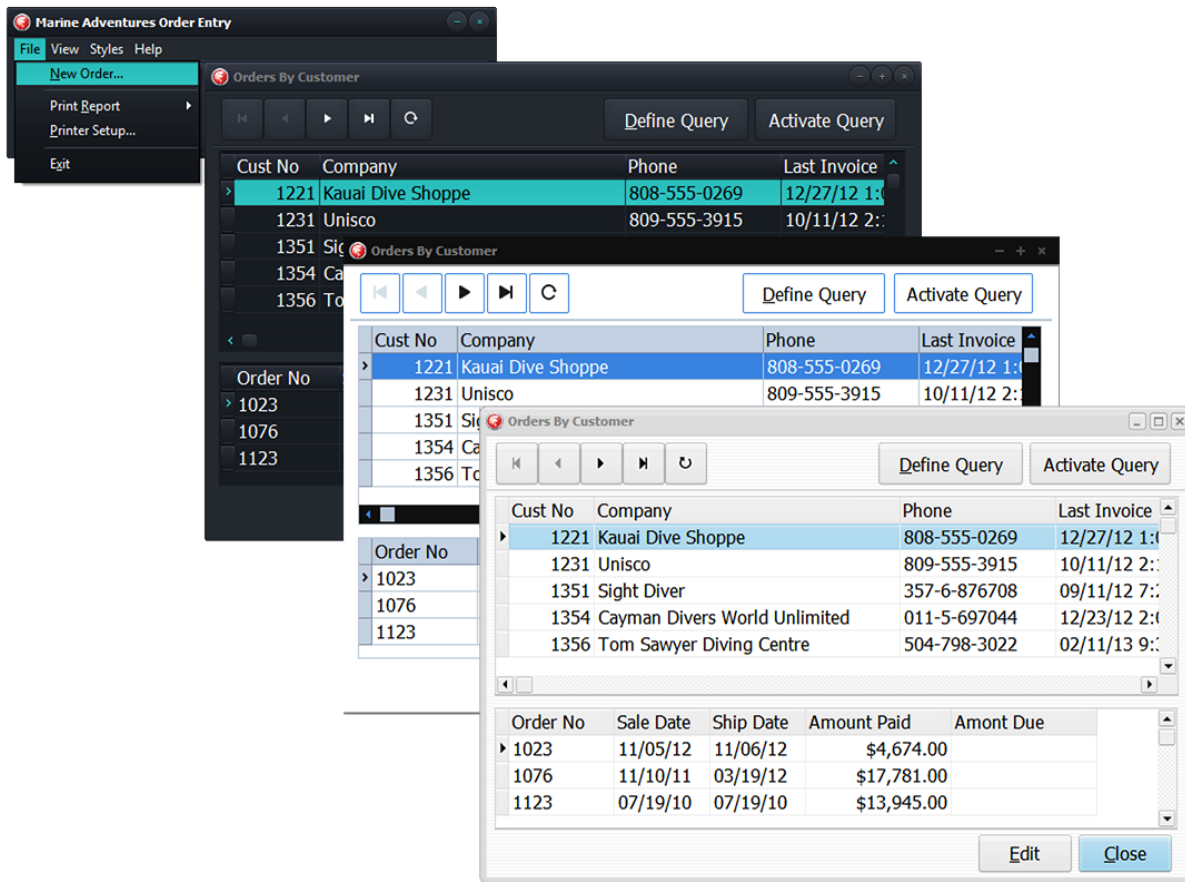
- New in FireDAC
  - Teradata database driver, based on ODBC driver
  - Support for InterBase Change Views
    - Details in the InterBase XE7 section
  - Change notifications
  - dbExpress to FireDAC migration tools
  - Enhanced SQLite v3.+ database support, with smart data types and both static and dynamic linking



# What's New in VCL in XE8? Summary

- Building on a very solid foundation
  - Fonts scaling and other improvements
- Connectivity
  - Bluetooth and AppTethering extensions
  - HTTP client library
- AppAnalytics
  - Track applications usage with little effort
- And many developer productivity features in the IDE, with the addition of GetIt, DUnitX, Mercurial

# Plus, New VCL Styles in XE8





# RAD Studio

The Connected App Platform  
for Windows and Beyond

## Developer Productivity in the IDE

For VCL and FireMonkey developers

# Developer Productivity Enhancements

The screenshot displays the RAD Studio XE8 IDE interface with several productivity enhancements highlighted by handwritten annotations and arrows:

- Intelligent clipboard tools:** A 'Multi-Paste' dialog box is open, showing options for text before/after each line and checkboxes for 'Fix Single Quotes' and 'Trim Clipboard Contents'.
- First-rate code navigation:** A 'Castalia Message' dialog box is shown, indicating 'Editing 3 instances in 1 file' with a table of key descriptions.
- Integrated code metrics:** A 'Code Analysis' window is open, displaying a table of method metrics.
- Smart automated refactoring:** An annotation points to the 'SaveRes' variable in the code editor.
- Advanced syntax highlighting:** An annotation points to the 'SaveRes' variable in the code editor.

The main code editor shows the following code snippet:

```

procedure TMainForm.CheckFileSave;
var
  SaveRes: Integer;
begin
  if not Editor.Modified then Exit;
  SaveRes := MessageDlg(Format(sSaveChanges, (FFile
  mcConfirmation, mbYesNoCancel, 0);
  case SaveRes of
    idYes: FileSave(Self);
    idNo: (Nothing);
    idCancel: Abort;
  end;
end;

procedure TMainForm.SetupRuler;
var
  I: Integer;
  S: String;
begin

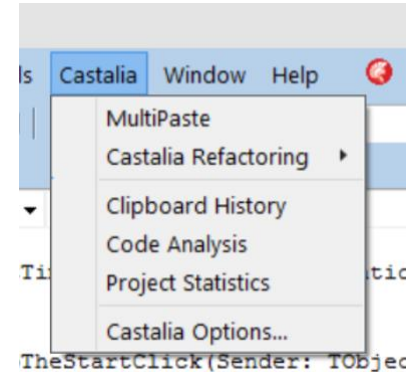
```

The 'Code Analysis' window displays the following table:

Method Name	Length	Parameter Count	If Depth	Cyclomatic Complexity	Toxicity
LoadViewResourceModule	15	1	3	4	0.517
TMainForm.FileSaveAs	8	1	3	4	0.458
TMainForm.SwitchLanguage	15	1	2	3	0.408
InternalReloadComponentRes	14	3	1	3	0.400
SetResourceInstance	10	1	2	4	0.392
TMainForm.FormCreate	18	1	0	6	0.342
TMainForm.SelectionChange	18	1	0	5	0.317
TMainForm.RulerItemMouseMove	2	4	1	2	0.317
TMainForm.CheckFileSave	6	0	1	6	0.283
TMainForm.ActionList2Update	5	2	1	2	0.258
TMainForm.LeftMouseDown	3	5	0	1	0.258
TMainForm.FirstMouseDown	3	5	0	1	0.258
TMainForm.RightMouseDown	3	5	0	1	0.258
TMainForm.RulerItemMouseDown	3	5	0	1	0.258
TMainForm.BoldButtonClick	5	1	1	3	0.242
TMainForm.ItalicButtonClick	5	1	1	3	0.242
TMainForm.UnderlineButtonClick	5	1	1	3	0.242

# Developer Productivity Enhancements

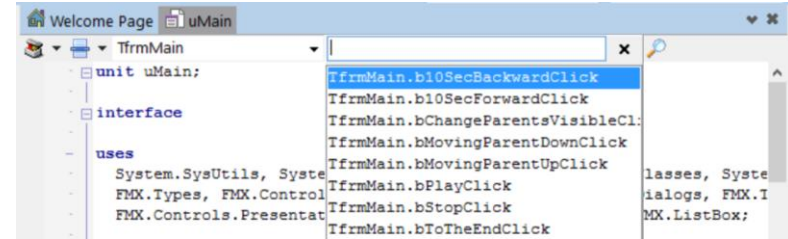
- IDE and editor extensions
- Initial Castalia integration
  - Some overlapping feature disabled
  - Still a separate menu, will be merged
- IDE features
  - Project statistics information, clipboard history, multi-paste support





# New Editor Features

- Shared
  - Stack bookmarks, smart keys, parenthesis matching, code structural highlight
- Object Pascal only
  - Castalia refactorings, Editor selection expansion, Flow controls highlighting, Code navigation toolbar, Smart symbol search
  - Code analysis to track quality



```

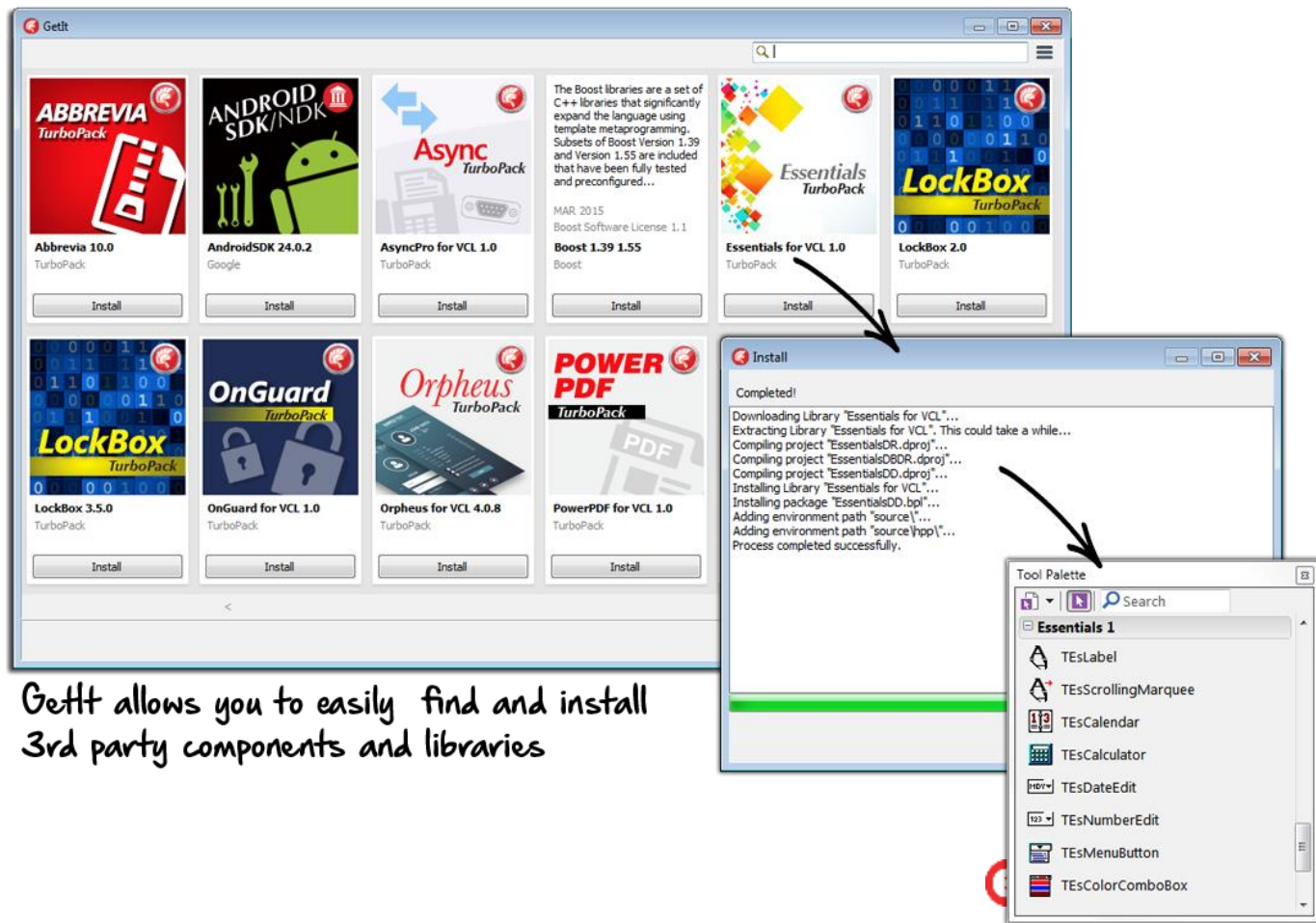
-   Attr: Integer;
-   begin
-   Path := TPath
-   Attr := faRes
-   FindFirst(Pat
-   if F.name <>
-   begin
-       ListBox1.It
-       while Find#
-       ListBox1.
-   end;
-   FindClose(F);
-   end;

```

# GetIt Package Manager

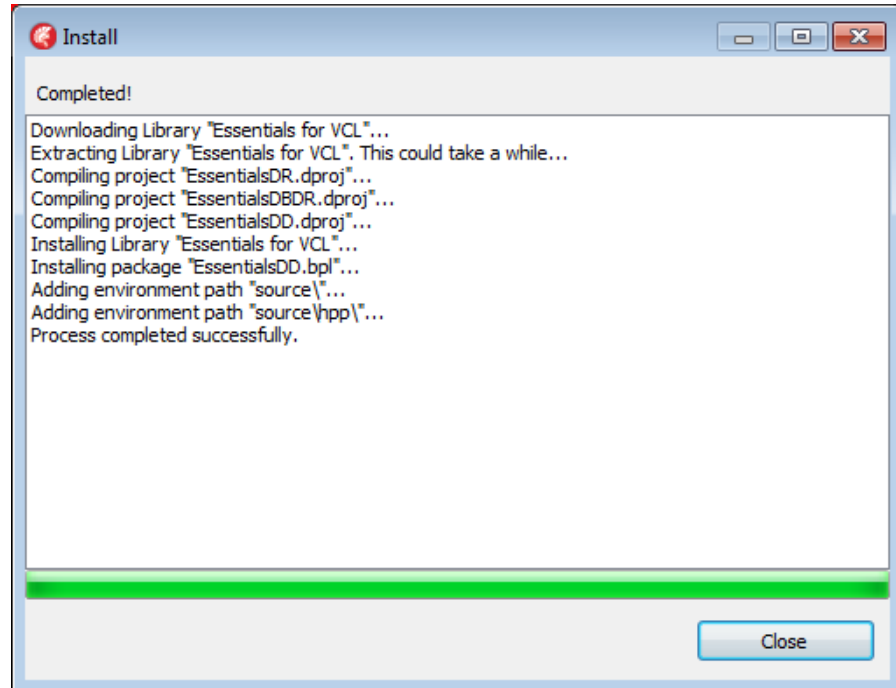
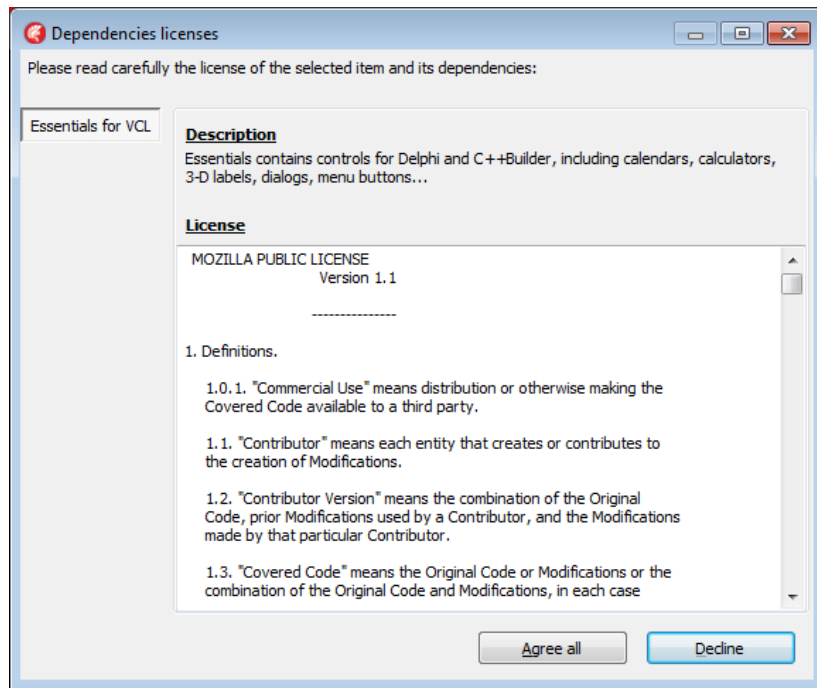
- Easy libraries discovery and one-click installation
- Hosting both VCL and multi-device libraries
- Includes all TurboPack projects
- “GetIt Library Manager for easy discovery, download and update of source code libraries, components, and other features from Embarcadero GetIt servers”

# GetIt Package Manager



GetIt allows you to easily find and install 3rd party components and libraries

# GetIt in 2 Clicks: Accept License and Install

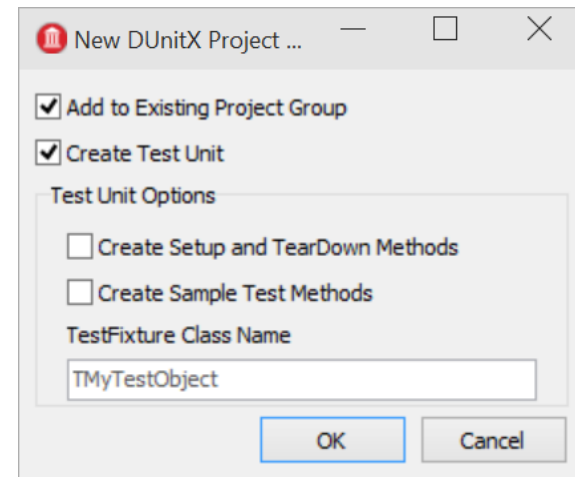


# What is “Turbo Pack”?

- Collection of “classic” open source components
  - Updated for XE7/XE8
  - Embarcadero sponsored update
  - Leveraging new language and RTL features when useful
- Most come from the Turbo Power open source projects (but not all)
  - This is the reason for the “Turbo” name
  - [www.turbopack.net](http://www.turbopack.net)

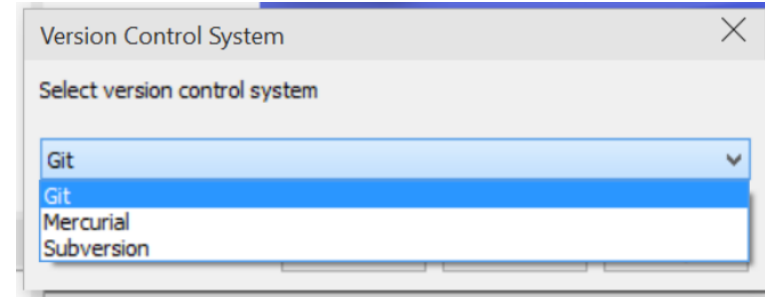
# DUnitX Support

- DUnitX
  - Modern Delphi unit testing framework
  - [github.com/VSoftTechnologies/DUnitX](https://github.com/VSoftTechnologies/DUnitX)
- Integrated support with wizards
  - Console and FMX runners
  - Delphi and C++
- DUnit runtime still in the product



# Version Insight

- Enhanced Subversion support
  - Change list labels, SVN merge dialog, branches switching
- Enhanced Git version control integration
  - Push and Pull changes to and from remote repositories
- *New* Mercurial version control integration
  - Cloning your remote repository, commit changes locally, show log data

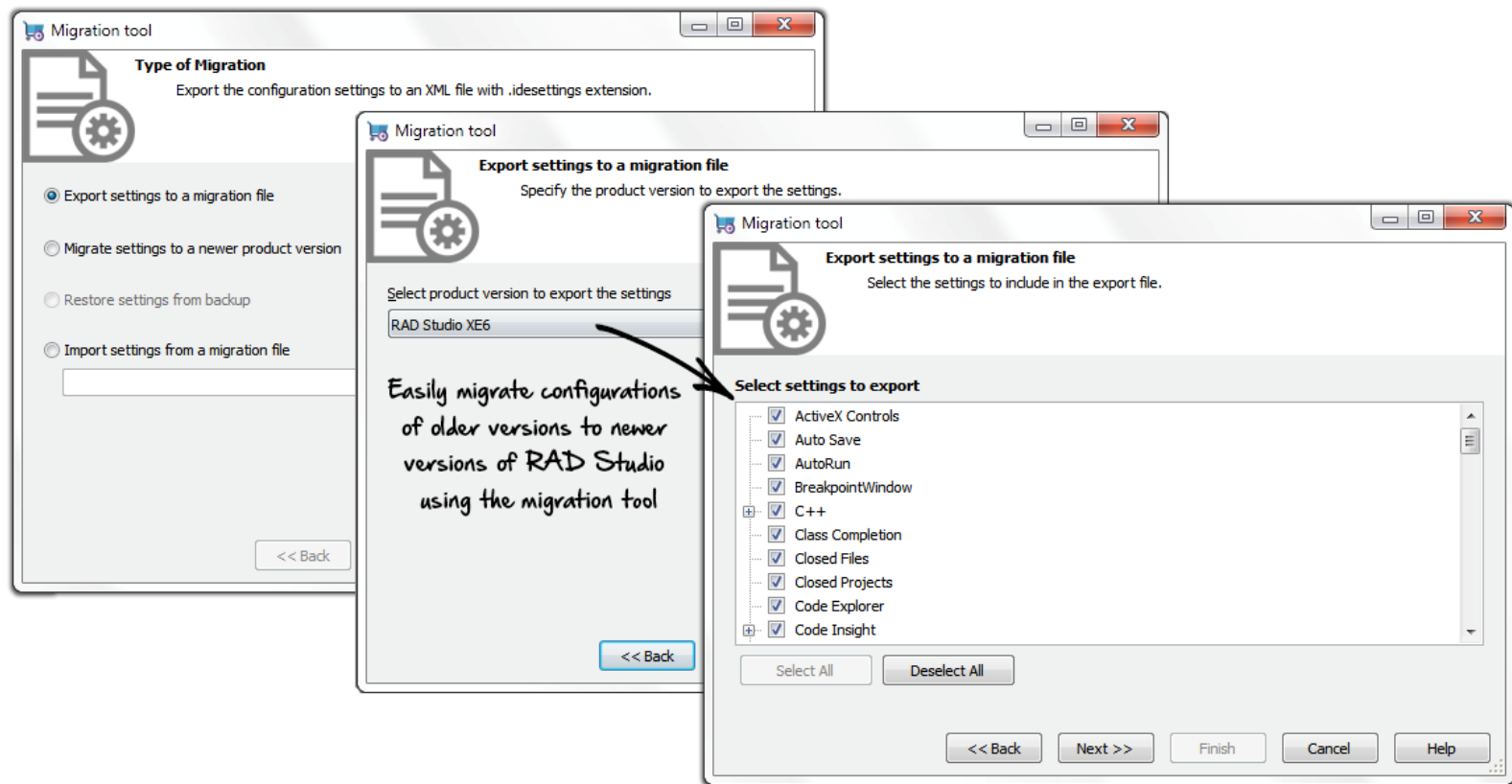


# Migrate IDE Settings

- In Bin folder, *migrationtool.exe*
- Migrate configurations from older versions of the IDE
  - If installed on the same machine, registry to registry
  - If different machines, export to/import from XML
- Copy configurations of same version between different installations (via XML)
- User can pick specific groups of settings

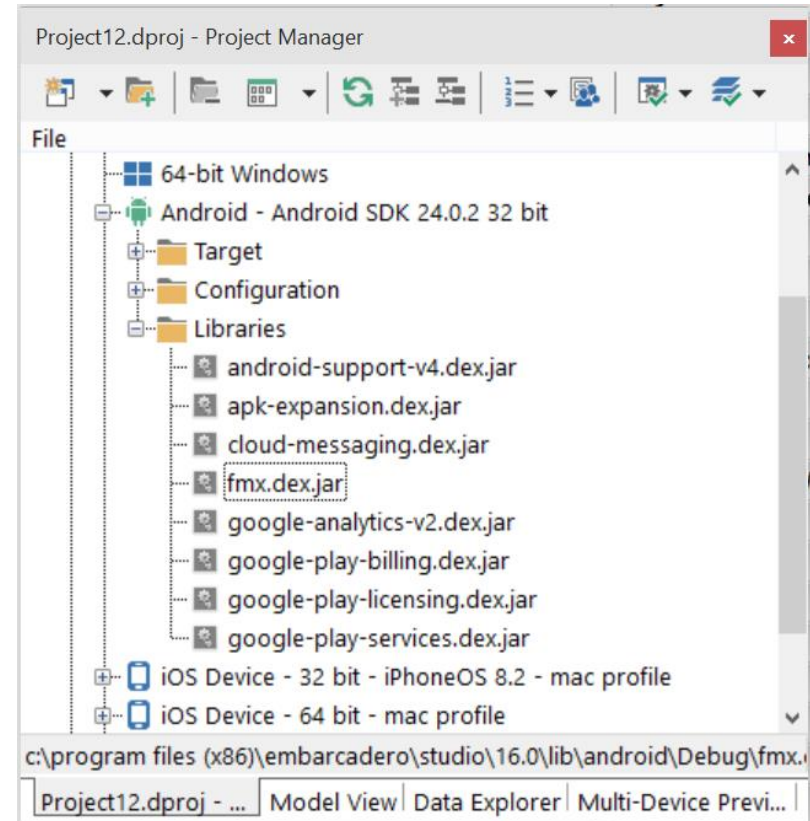


# Migrate IDE Settings



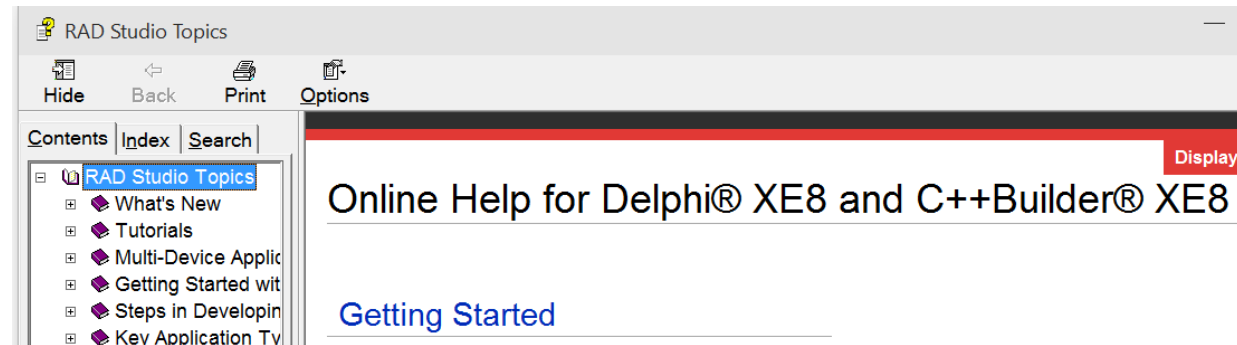
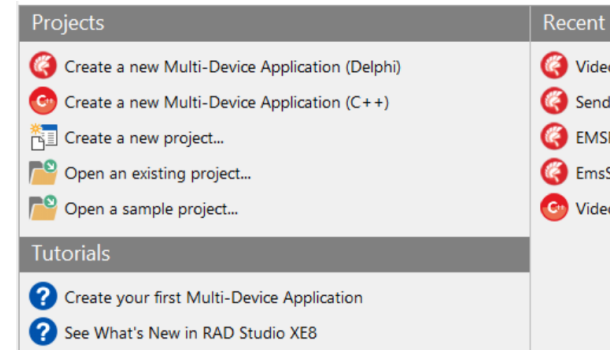
# Android Java Libraries Management

- Add custom Java libraries to a project
- Remove the standard libraries you don't need
- Builds a custom classes.dex library for the project



# More New XE8 IDE Features

- CHM help is back
- Start here page redesign
- Improved installation experience and reduced installation footprint (removes temporary files)





# RAD Studio

The Connected App Platform  
for Windows and Beyond

## EMS in RAD Studio XE8

Connecting mobile, desktop, and IoT

# What is EMS?

Enterprise Mobility Services

A turnkey middleware server enabling:

- User management and authentication
- Loadable modules for custom APIs over REST
- Enterprise SQL database access through
- Mobile embedded and server-side SQL data storage
- Web console for user, device, and API analytics



# Why EMS?

- Mobile solutions require strong backend for enterprise focus
- Advantage of turn-key, cloud-ready solution, fast and easy deployment
- Critical for enterprise acceptance
  - Shared customers backed for a VAR

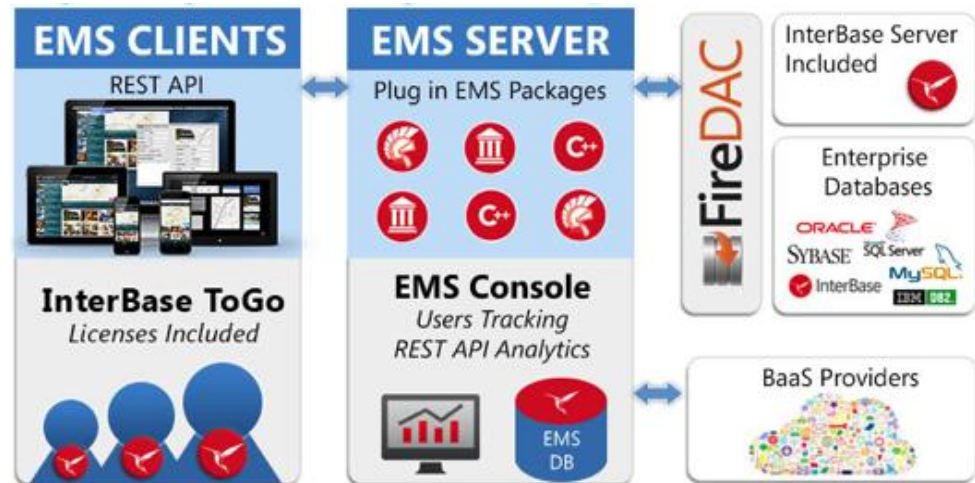


# EMS as Enterprise Private Cloud



# EMS is Multi-Tier

- EMS Clients use REST API, embed local secure database
- EMS Servers hosts plug-in packages, uses EMS DB
- EMS Packages communicate with enterprise databases, cloud data





# EMS Analytics



# EMS in Practice

- Use RAD Studio to build
  - server modules
  - mobile/desktop clients
- Self Hosted
  - Personal cloud or traditional server
- Licences
  - Per user fee, unlimited apps and calls (and push...)



# New Features in EMS for XE8

- Integrated Push Notifications
- External credentials support
  - Demo showing ActiveDirectory integration
- Database connections pooling
- Export Data from Web Console
  - Improved users/groups analytics
- Client console for managing user accounts and more

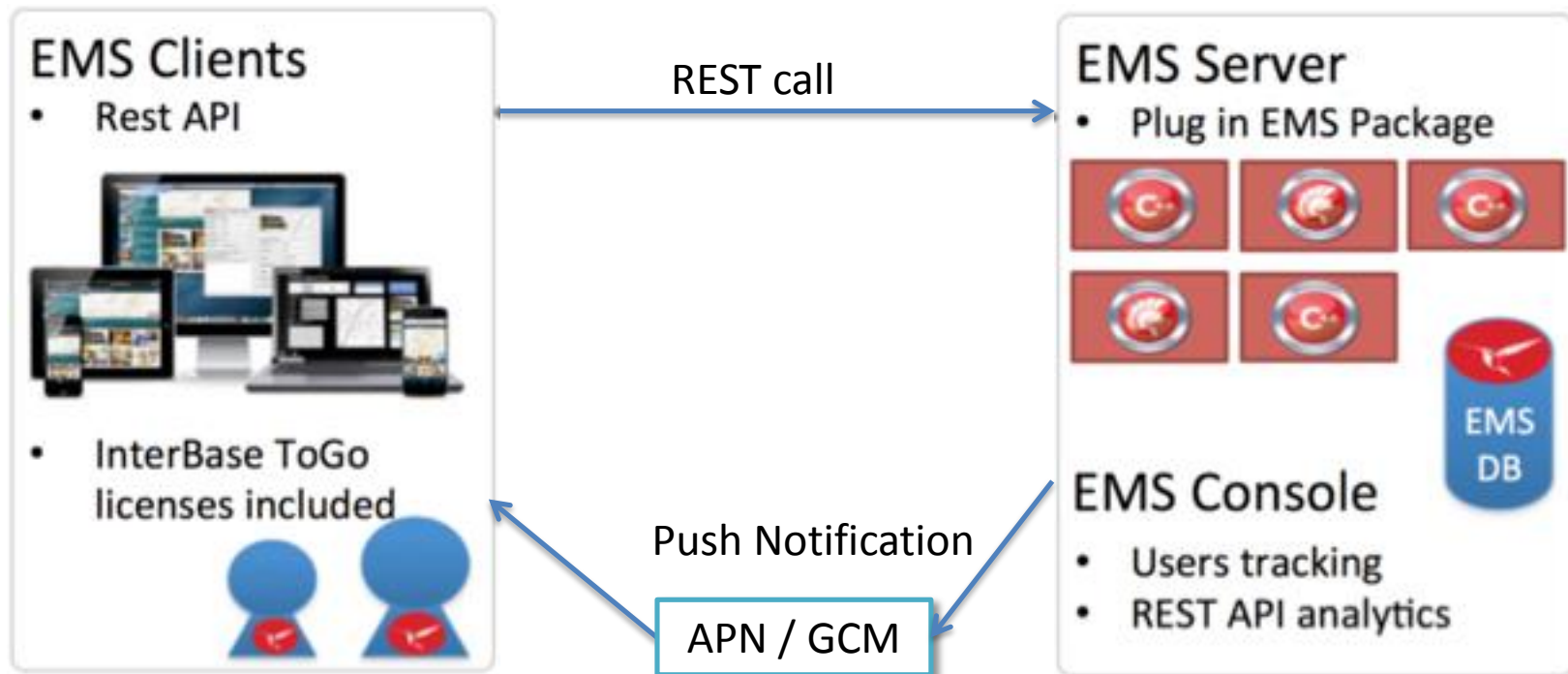
# What are Push Notifications?

- Mechanism to send notifications to (mobile) devices
  - App on mobile needs to signup and authorize
  - Can receive notifications while app is not running
- Core providers
  - Android: Google Cloud Messaging (GCM)
  - iOS: Apple Push Notification (APN)

# Push in RAD Studio

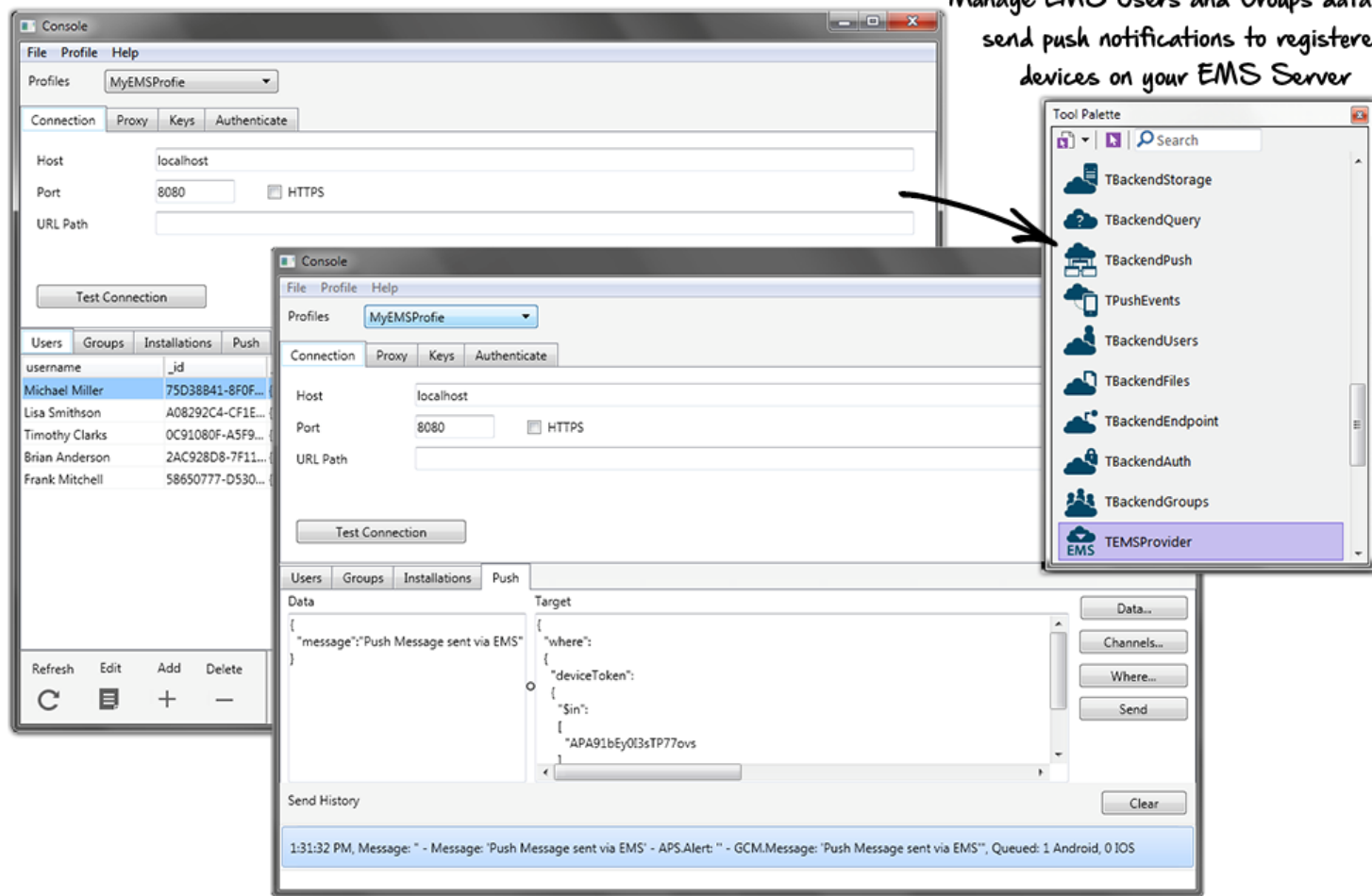
- Permissions to receive Push Notifications
  - Android: App permission
  - iOS: Entitlement file
- BaaS
  - Parse, Kinvey, (App42)
- EMS
  - Direct, integrated support
  - Broadcast and subscription based notifications

# EMS and Push

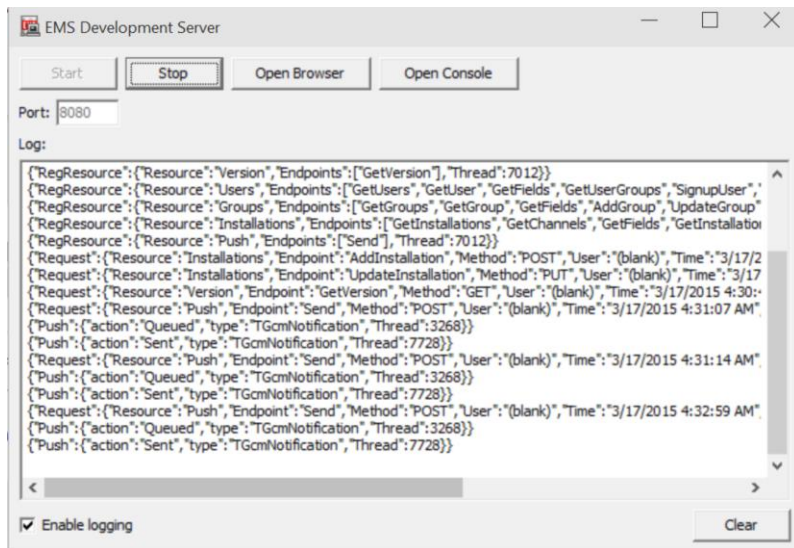


# EMS Push

Manage EMS Users and Groups data and send push notifications to registered devices on your EMS Server



# EMS Push Demo



## Google Developers Console

< Projects



ON



### MatchResults

Overview

Permissions

Billing & settings

### APIs & auth

APIs

Credentials

Consent screen

Push

### Monitoring

### Source Code

### Compute

## Google Cloud Messaging for Android

[OVERVIEW](#)

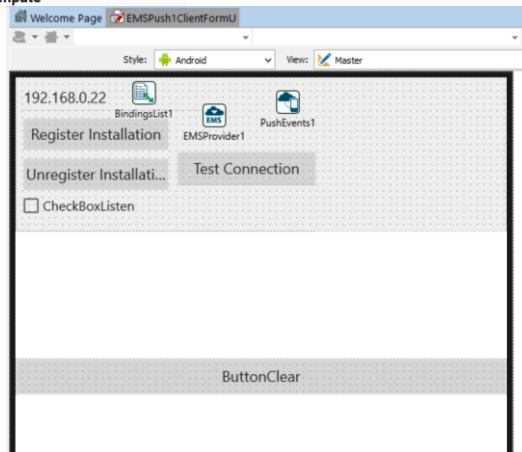
[USAGE](#)

[QUOTAS](#)

Google Cloud Messaging allows for push messaging to Android devices.

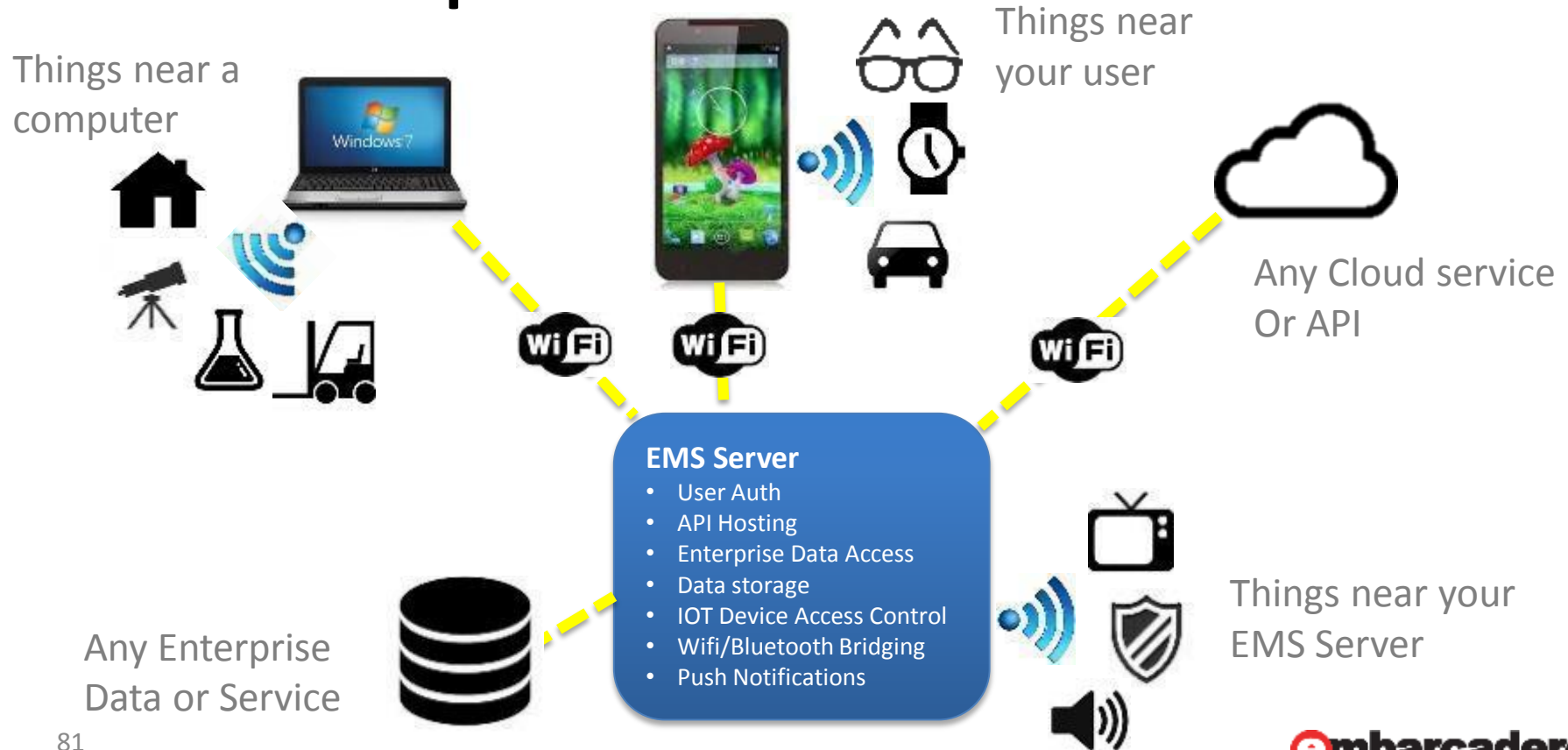
[Learn more](#)

[View reports in API Console](#)



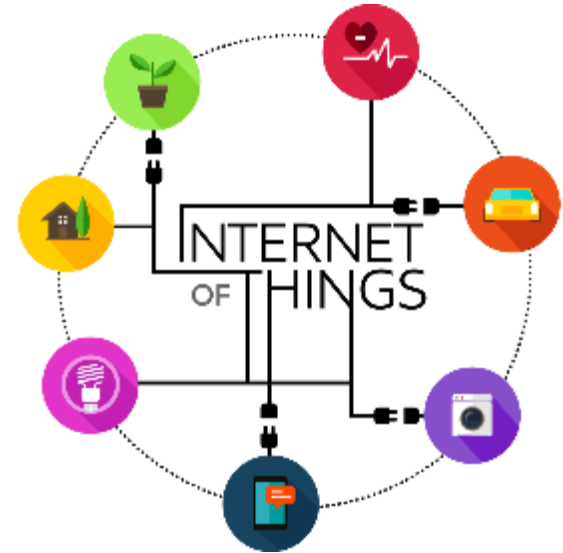


# IoT for Enterprise

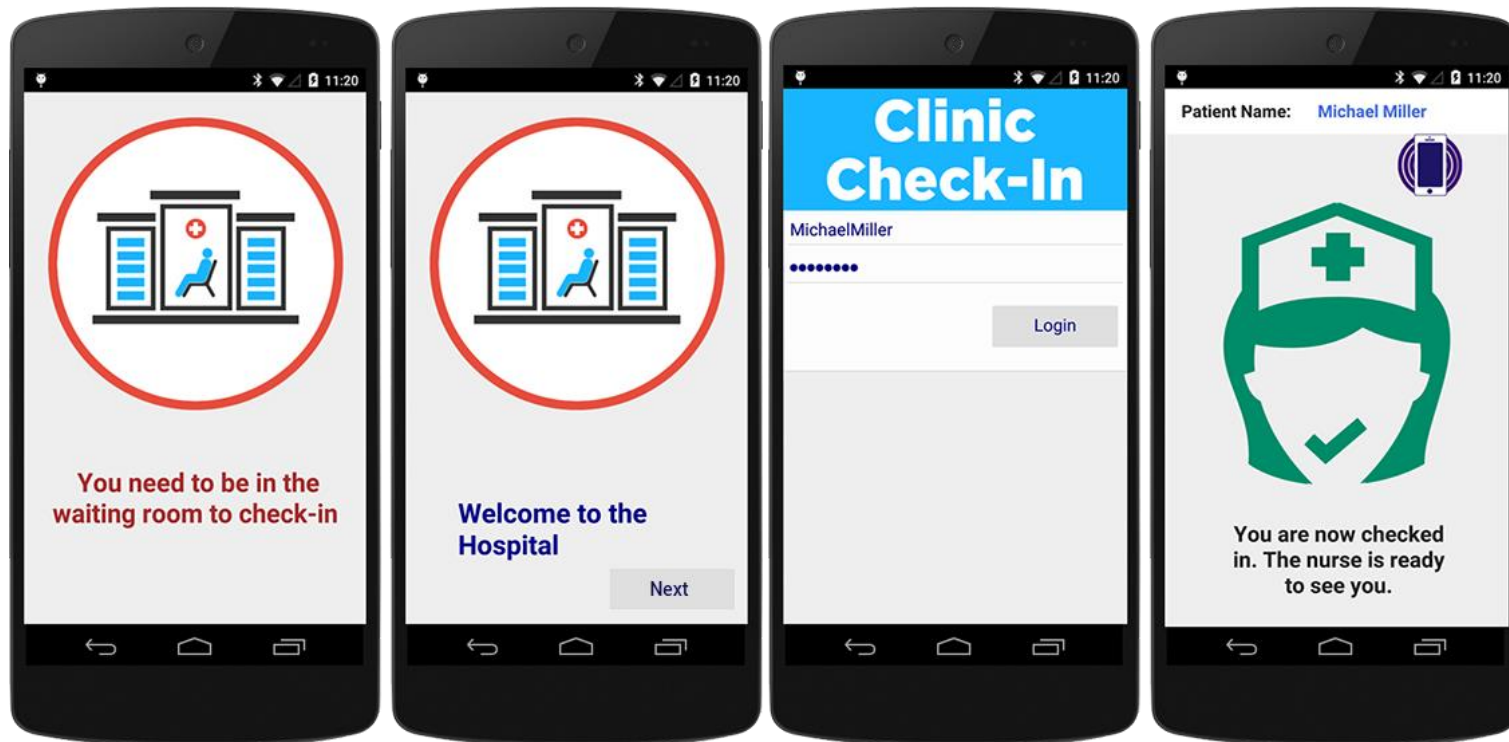


# The Nurse Station Demo

- A patient walks into a doctor's office...
- A real world scenario showcasing
  - Apps integration via EMS
    - FireMonkey, mobile, VCL
    - Push notifications, AppAnalytics
  - Internet of Things
    - Device integration via Bluetooth
    - Beacons



# Nurse Station: Patient App



# Nurse Station: Nurse App





# RAD Studio

The Connected App Platform  
for Windows and Beyond






## InterBase XE7

# Recent InterBase Innovations

- Dynamic SQL in Stored Procedures
- Optimized large object handling
  - Larger database support
- Security and Encryption updates
- 64bit ODBC driver, JDBC driver updates
- Fast database sweep
- Database platform portability
  - Windows, Linux, Mac, iOS, Android
- Free edition - IBLite



# New in InterBase XE7

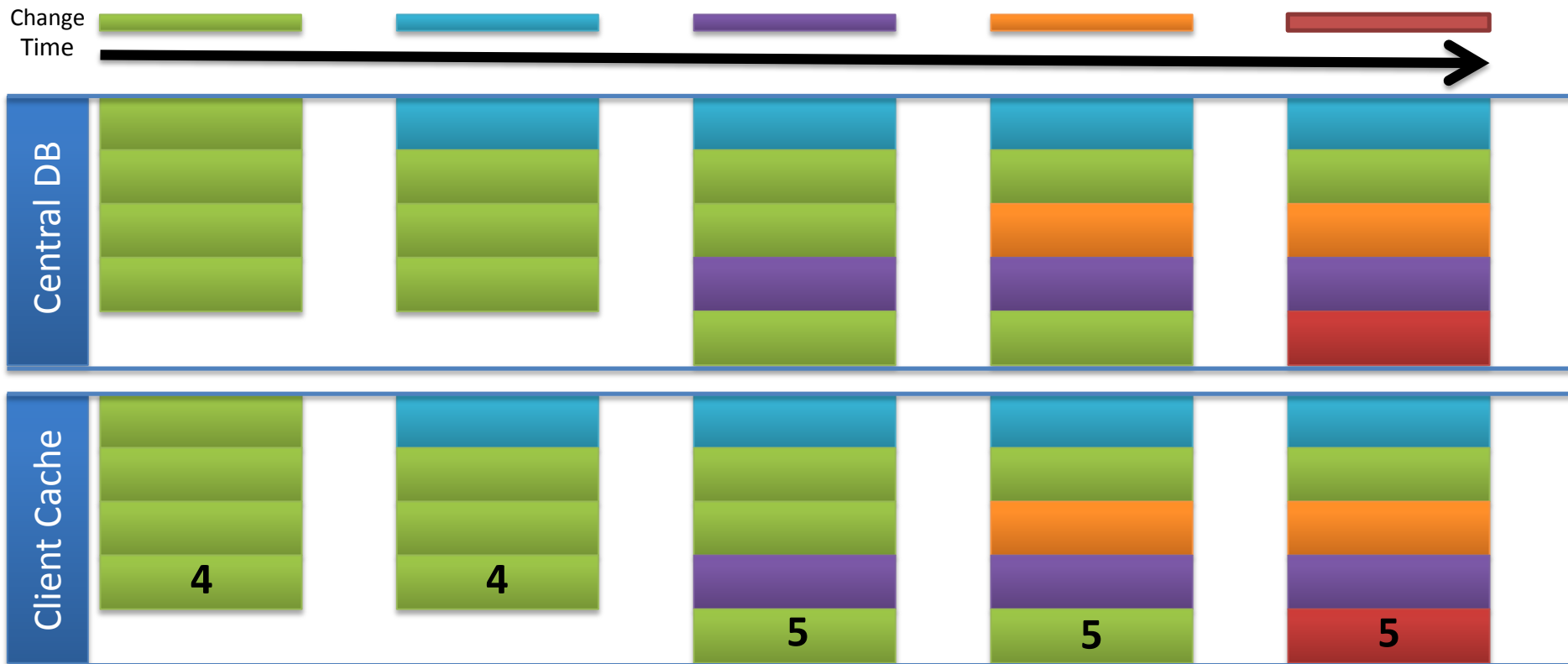
- Change Views™
- 64bit Transaction IDs
  - 10K transactions/min= 150+ years running
  - Updates to Performance Monitor
- 64bit Linux
  -  • New - Ubuntu 14
  -  • RHEL 6 & 7
  -  • SUSE 11
- OpenSSL updated to 1.0.1i
- Speed improvements
  - S.M.P. and Index Manager
- Partial Index Intelligence
- “Distinguished” Data Dumps
- Services API
  - Journaling and Online Dumps
- Restore to older versions
  - for older development systems

# What are Change Views?

- A new “subscription based” model to “subscribe” to data and identify what data has changed in the DB
- Subscriptions can run both
  - During a connection
  - Spanning connections and time
- Each subscriber can have multiple devices subscribed to the same data

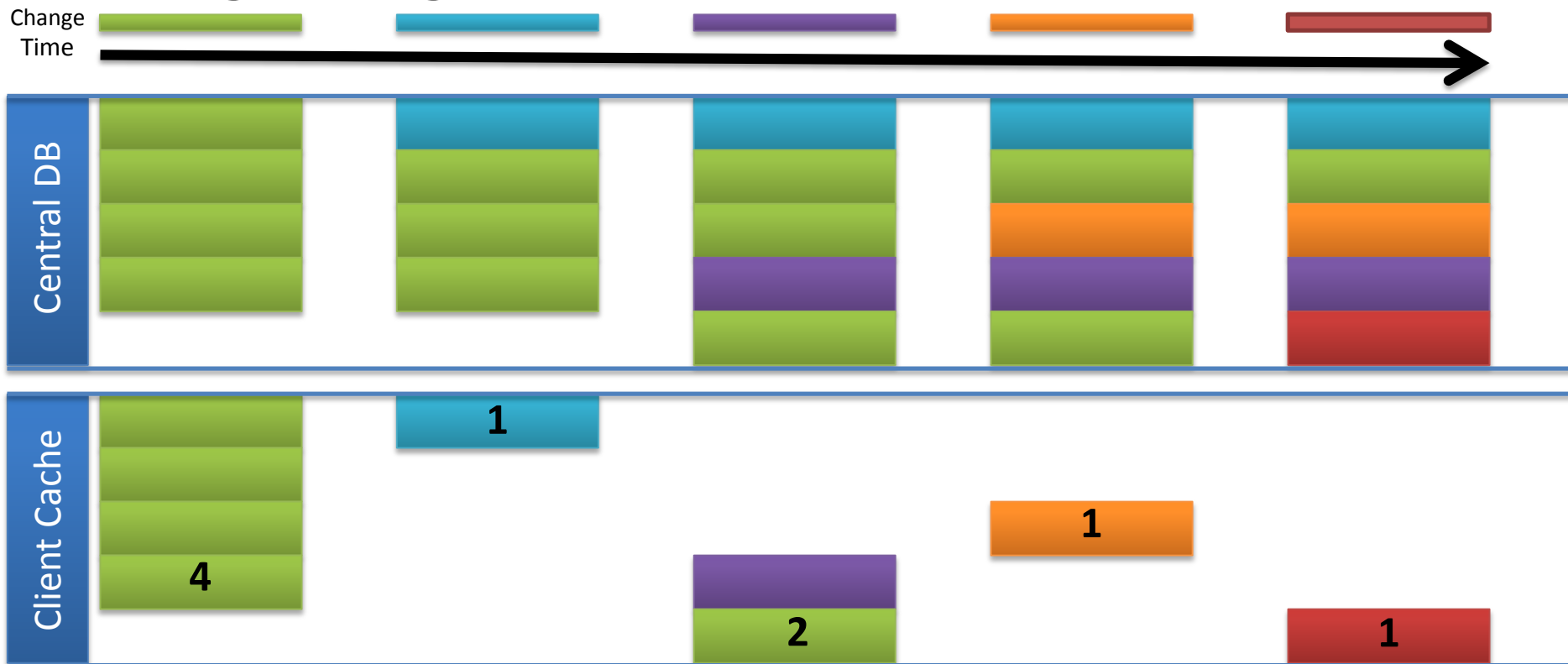


# Traditional Data Briefcase



Virtual field packets sent:  $4 + 4 + 5 + 5 + 5 = 23$

# Using Change Views



Virtual field packets sent: 4 + 1 + 2 + 1 + 1 = 9

# Change Views – How They Work

- Subscriptions
  - Are tied to specific data that allows you to identify at a column level what data has been changed
  - Can be any mix of tables/columns
  - Don't report back your changes, only what others have changed
  - Run across connections / no need to stay connected
- Multiple users and devices
  - Multiple users can subscribe to the same subscription configuration
  - Each user can subscribe multiple independent devices

# Change Views are different!



- Have:
  - Near zero footprint on DB
  - Field Level Granularity
  - High Scalability
  - Tight security control
  - FireDAC & IBX integration
- Are:
  - Fast & easy to implement
  - SQL Query-able
  - Multi-user / thread safe
- Say good bye to:
  - Time-stamp tracking fields
  - Table locking for updates
  - Triggers upon triggers
  - Table structure changes
  - Log tables that verbose your DB

# FireDAC and InterBase XE7 ChangeViews

- New FireDAC datasets method MergeDataSet

```
1 procedure TdtmdlDelta.PostDeltas;  
2 begin  
3     qryCategory.MergeDataSet(qryCategoryDelta, TFDMergeDataMode.dmDeltaMerge, mmUpdate);  
4     qryMedicine.MergeDataSet(qryMedicineDelta, TFDMergeDataMode.dmDeltaMerge, mmUpdate);  
5     qryMedicineCategories.MergeDataSet(qryMedicineCategoriesDelta, TFDMergeDataMode.dmDeltaMerge,  
6  
7     qryCategory.ApplyUpdates;  
8     qryMedicine.ApplyUpdates;  
9     qryMedicineCategories.ApplyUpdates;  
10  
11     FDTransactionDelta.Commit;  
12  
13     if Assigned(OnPostDeltas) then  
14         OnPostDeltas(Self)  
15 end;
```

# InterBase – Editions

INSTALLED	<ol style="list-style-type: none"> <li><b>1. Server Edition</b> <ul style="list-style-type: none"> <li>– 1 to unlimited connections</li> </ul> </li> <li><b>2. Desktop Edition</b> <ul style="list-style-type: none"> <li>– Same as server, but local connections only.</li> </ul> </li> </ol>
LIBRARY	<ol style="list-style-type: none"> <li><b>3. ToGo Edition</b> <ul style="list-style-type: none"> <li>– Embedded version  </li> </ul> </li> <li><b>4. IBLite Edition</b> <ul style="list-style-type: none"> <li>– Feature limited version of ToGo               <ul style="list-style-type: none"> <li>• 100mb on disk</li> <li>• No inbuilt encryption / Change Views</li> <li>• Single thread connection</li> </ul> </li> </ul> </li> </ol>

TRIAL	<ol style="list-style-type: none"> <li><b>1. Free 90 day Server trial</b> <ul style="list-style-type: none"> <li>– Full featured server edition</li> <li>– 20 users / 80 connections</li> </ul> </li> <li><b>3. ToGo Edition</b> <ul style="list-style-type: none"> <li>– Embedded Version</li> </ul> </li> </ol>
DEVELOPMENT	<ol style="list-style-type: none"> <li><b>1. Developer Edition</b> <ul style="list-style-type: none"> <li>– 20 users / 80 connections</li> <li>– Weak encryption only</li> <li>– Time-limited connection</li> </ul> </li> <li><b>1,3 SDK Pack</b> <ul style="list-style-type: none"> <li>– Full featured licenses</li> <li>– Time-limited (Similar to trial)</li> </ul> </li> </ol>



# RAD Studio

The Connected App Platform  
for Windows and Beyond

**More (Online) Information**

# Want to Dive Deeper? Follow the Skill Sprints!

- 1 topic, 20 minute deep dive with Q&A

A promotional banner for 'Developer Skill Sprints'. On the left, the text reads: 'Developer Skill Sprints' in large black font, followed by 'Fast Programming' in black, 'TIPS, TRICKS & TECHNIQUES' in red, and 'Live online workshops' in black. On the right, there is a photograph of a person's legs in a starting crouch, wearing black athletic shoes. Next to the photo is the RAD Studio logo (a red circle with a white classical building icon) and the text 'RAD Studio' in black.

**Developer Skill Sprints**

Fast Programming  
**TIPS, TRICKS & TECHNIQUES**

Live online workshops

 **RAD Studio**



# Join the (New) Embarcadero Community

<http://community.embarcadero.com>



Home · Blogs · Answers · Articles · Forum



# RAD Studio

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## RAD Studio XE8: Ready for You

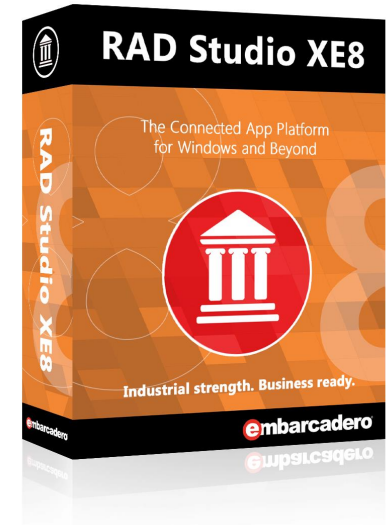
# RAD Studio XE8

## Versions:

- Starter
  - Delphi and C++Builder
- Professional
- Enterprise
- Ultimate
- Architect

## Includes:

- C++Builder
- Delphi
- HTML5 Builder
- InterBase XE7
- A rich set of third party tools



# Update Subscription Advantages

- Includes updates and fixes
  - Only way to get updates from now on
  - Also fixes for recent, past releases (***new***)
- Includes support incidents
- Includes exclusive content (***new***)
- Extends Maintenance and Support
  - Same price point and model, automatic migration

# XE8 Offers

- 10% discount if you buy before June 30<sup>th</sup>
- Free Bonus Pack
  - Premium Styles
  - Object Pascal Handbook eBook



# Components with Runtime Licenses

- InterBase
  - Server, IBToGo for desktop and mobile
- Enterprise Mobility Services (EMS)
  - Per user fee, minimum 50 users
- Embarcadero AppAnalytics
  - Free basic tier (application starts)
  - Pay by volume

# Primary Benefits of RAD Studio XE8

The Connected App Platform for Windows and Beyond



The best tool for multi-device development for Windows, OS X, iOS, Android



Bluetooth, App Tethering, Beacons for the Internet of Things



Turn-key services: AppAnalytics and Enterprise Mobility Services



# Questions?





# RAD Studio

Learn More at

[www.embarcadero.com/rad-studio](http://www.embarcadero.com/rad-studio)

Try it FREE >

[www.embarcadero.com/trial](http://www.embarcadero.com/trial)