



Lesson 1: Hello World

My First Multi-Device App

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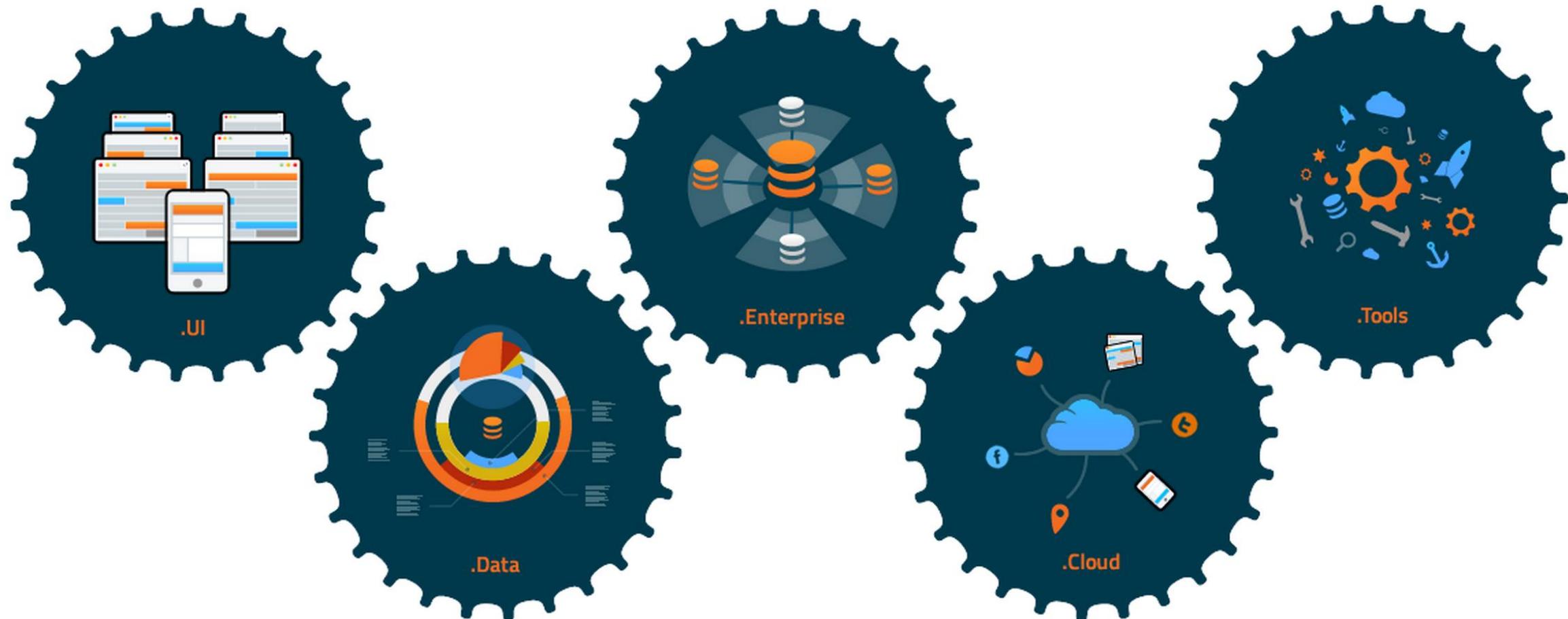
Mobile App Development

- Lesson 1 – Hello World! My First Multi-Device App
- Lesson 2 – Turning up the Style and Data!
- Lesson 3 – Accessing Local Storage
- Lesson 4 – Building Multi-tier, Multi-device Apps
- Lesson 5 – Connecting Mobile and Desktop using Tethering
- Lesson 6 – Accessing REST and BaaS Cloud Services

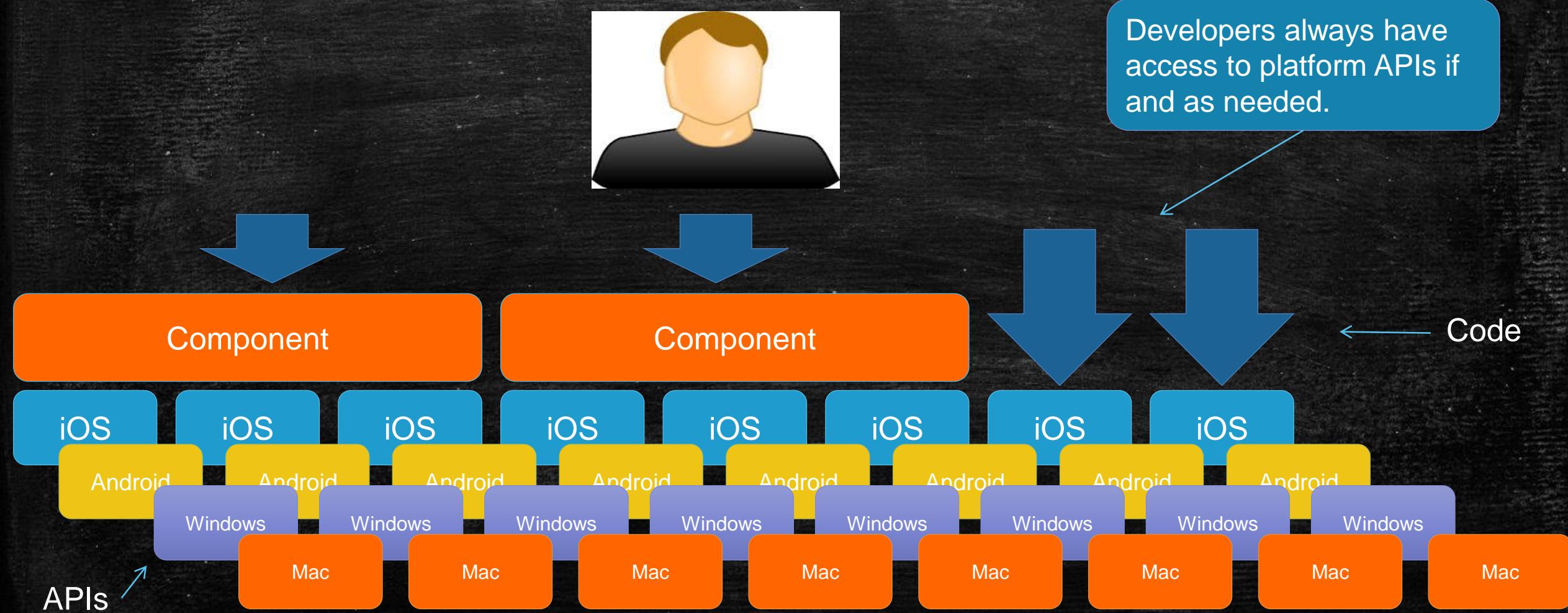
Lesson 1 Agenda

- Setting up your development environment
- The mobile app business scenario
- The IDE
- Your first app
- Samples and Snippets
- Get started on the mobile app
- Review, Homework and Next Time
- Q&A

A Complete Application Development Platform



Developing with Pre-built Components



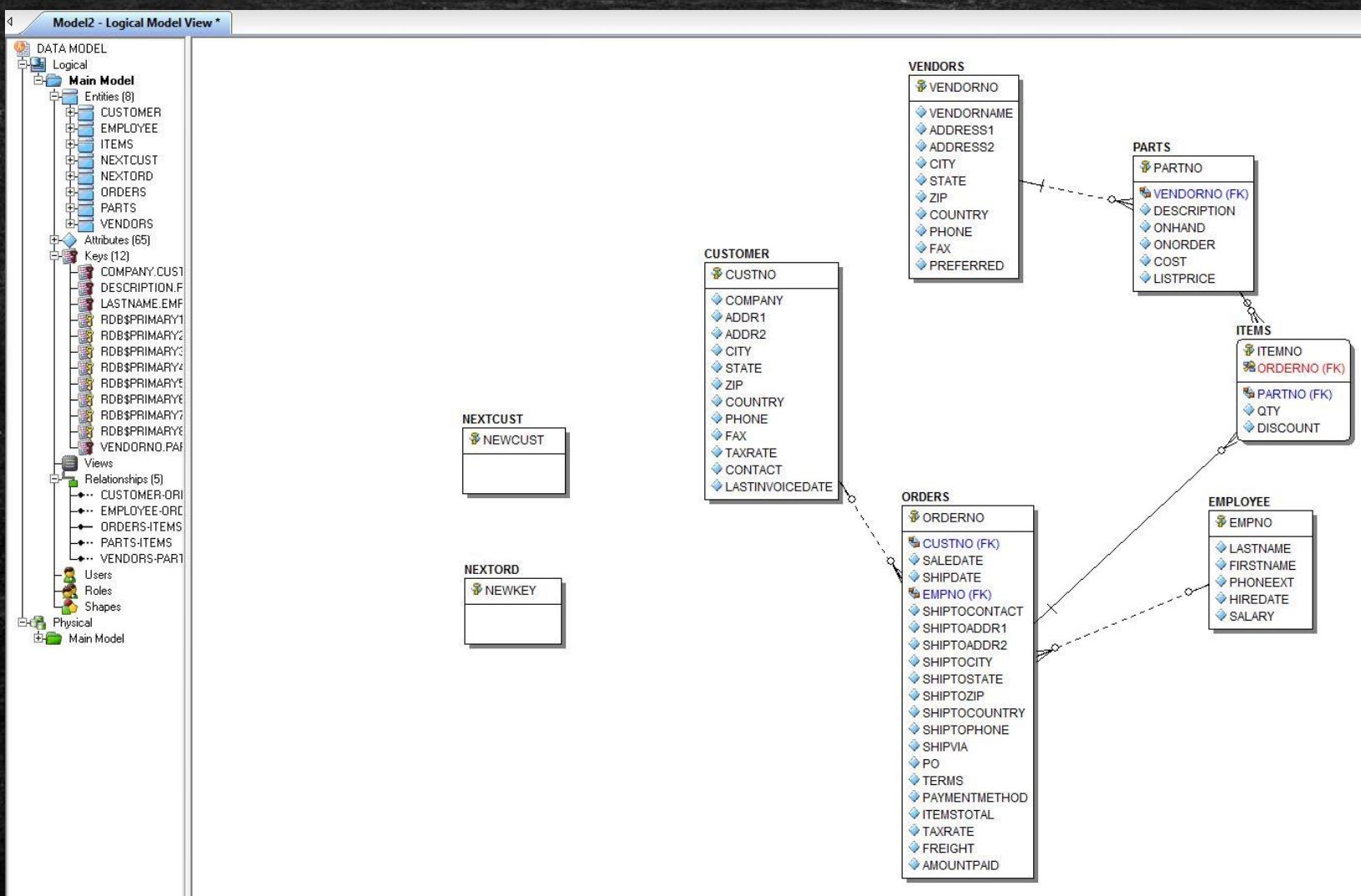
Setting up your Development Environment

- Install Appmethod v1.14 or RAD Studio XE6 update 1
- Android SDK and NDK are pre-installed and configured
 - Run the Android SDK manager to make sure you have the latest packages
- OSX and iOS
 - Install Platform Assistant (PAServer) on your Mac and start it
 - Install the latest Xcode (we leverage the SDKs and command line tools)
- Set up OSX and iOS SDKs using Tools | Options
 - Connection Profile Manager
 - SDK Manager
- Devices
 - Make sure your Android device is set up for development
 - Enable USB debugging on your device, install Android USB driver on your PC
 - Make sure your iOS device is set up for development
 - Register your device for development

Business Application Scenario

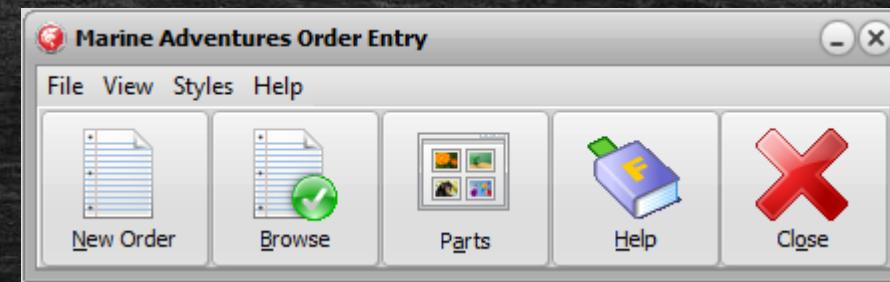
- Customer, Orders, Items, Employees, Vendors, Parts
- Existing application runs on Windows
- Business needs to add mobile apps and extend to the cloud
- SQL database is InterBase XE3 “MASTSQ.L.GDB”
 - C:\Users\Public\Documents\Embarcadero\Studio\14.0\Samples\Data

The Data Model



The Existing Windows App

- Menu, ButtonBar
- Pop-up windows
- Edit forms



| Orders By Customer | | | | |
|--------------------|-------------------------------|--------------|----------------|-----------|
| | | Define Query | Activate Query | |
| Cust No | Company | Phone | Last Invoice | |
| 1221 | Kauai Dive Shoppe | 808-555-0269 | 12/27/12 1:0 | |
| 1231 | Unisco | 809-555-3915 | 10/11/12 2: | |
| 1351 | Sight Diver | 357-6-876708 | 09/11/12 7: | |
| 1354 | Cayman Divers World Unlimited | 011-5-697044 | 12/23/12 2:0 | |
| 1356 | Tom Sawyer Diving Centre | 504-798-3022 | 02/11/13 9: | |
| 1380 | Blue Jack Aqua Center | 401-609-7623 | 10/02/12 11 | |
| 1384 | VIP Divers Club | 809-453-5976 | 12/26/12 6: | |
| 1510 | Ocean Paradise | 808-555-8231 | 10/03/12 1:2 | |
| Order No | Sale Date | Ship Date | Amount Paid | Amont Due |
| 1023 | 11/05/12 | 11/06/12 | \$4,674.00 | |
| 1076 | 11/10/11 | 03/19/12 | \$17,781.00 | |
| 1123 | 07/19/10 | 07/19/10 | \$13,945.00 | |

Edit Close

A screenshot of the 'Edit Customers' dialog box. It contains fields for Company (Kauai Dive Shoppe), CustNo (1221), Add1 (4-976 Sugarloaf Hwy), Phone (808-555-0269), Add2 (Suite 103), Fax (808-555-0278), City (Kapaa Kauai), State (HI), Zip Code (94766-1234), Country (America), Contact (Erica Norman), Last Invoice (12/27/12 1:05:03), and Tax Rate (8.5). Buttons at the bottom include 'OK' (green checkmark) and 'Cancel' (red X).

Edit Customers

Company: Kauai Dive Shoppe CustNo: 1221
Add1: 4-976 Sugarloaf Hwy Phone: 808-555-0269
Add2: Suite 103 Fax: 808-555-0278
City: Kapaa Kauai State: HI Zip Code: 94766-1234 Country: America
Contact: Erica Norman Last Invoice: 12/27/12 1:05:03 Tax Rate: 8.5

OK Cancel

| Browse Parts | | | |
|--------------|-------------------------------|--------|---------|
| Part No | Description | Onhand | OnOrder |
| 900 | Dive kayak (medium) | 24 | 1 |
| 912 | Underwater Diver Vehicle | 5 | |
| 1313 | Regulator System | 165 | 21 |
| 1314 | Second Stage Regulator | 98 | 8 |
| 1316 | Regulator System | 75 | 7 |
| 1320 | Second Stage Regulator | 37 | 3 |
| 1328 | Regulator System | 166 | 10 |
| 1330 | Alternate Inflation Regulator | 47 | 4 |

Close

The IDE – menu, toolbar, views

The Structure View shows a tree view that represents the parent-child relationships between the components on the current form. You can use the Structure View to modify these relationships.

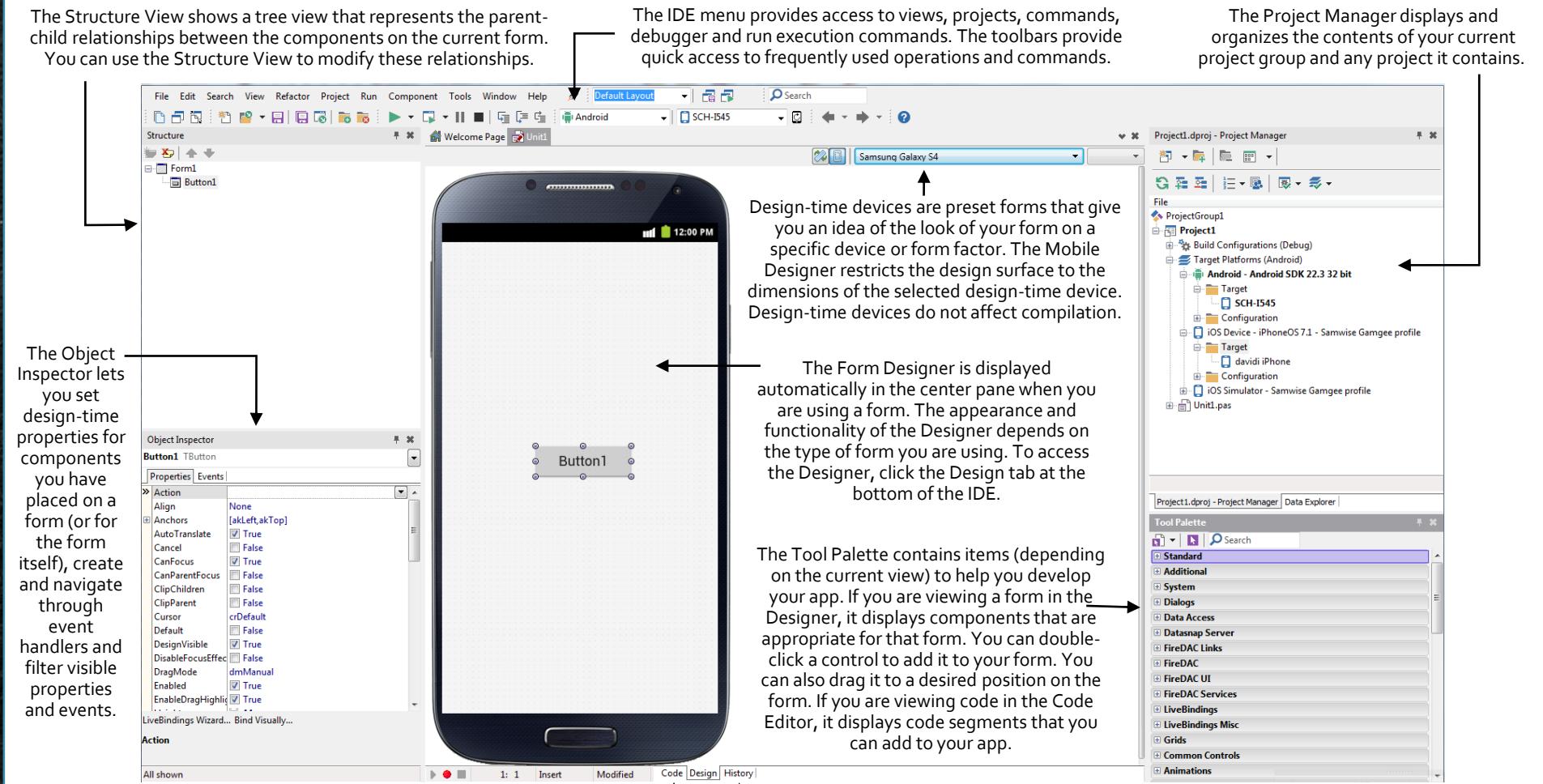
The Object Inspector lets you set design-time properties for components you have placed on a form (or for the form itself), create and navigate through event handlers and filter visible properties and events.

The IDE menu provides access to views, projects, commands, debugger and run execution commands. The toolbars provide quick access to frequently used operations and commands.

Design-time devices are preset forms that give you an idea of the look of your form on a specific device or form factor. The Mobile Designer restricts the design surface to the dimensions of the selected design-time device. Design-time devices do not affect compilation.

The Form Designer is displayed automatically in the center pane when you are using a form. The appearance and functionality of the Designer depends on the type of form you are using. To access the Designer, click the Design tab at the bottom of the IDE.

The Tool Palette contains items (depending on the current view) to help you develop your app. If you are viewing a form in the Designer, it displays components that are appropriate for that form. You can double-click a control to add it to your form. You can also drag it to a desired position on the form. If you are viewing code in the Code Editor, it displays code segments that you can add to your app.



The Code Editor is a full-featured, customizable, UTF8 editor that provides Code Insight, syntax highlighting, multiple undo capability, Smart Block Completion and more. The History Manager lets you compare versions of a file, saved/unsaved local changes, and more. If the current file is under version control, all types of revisions are available.

The Component Framework

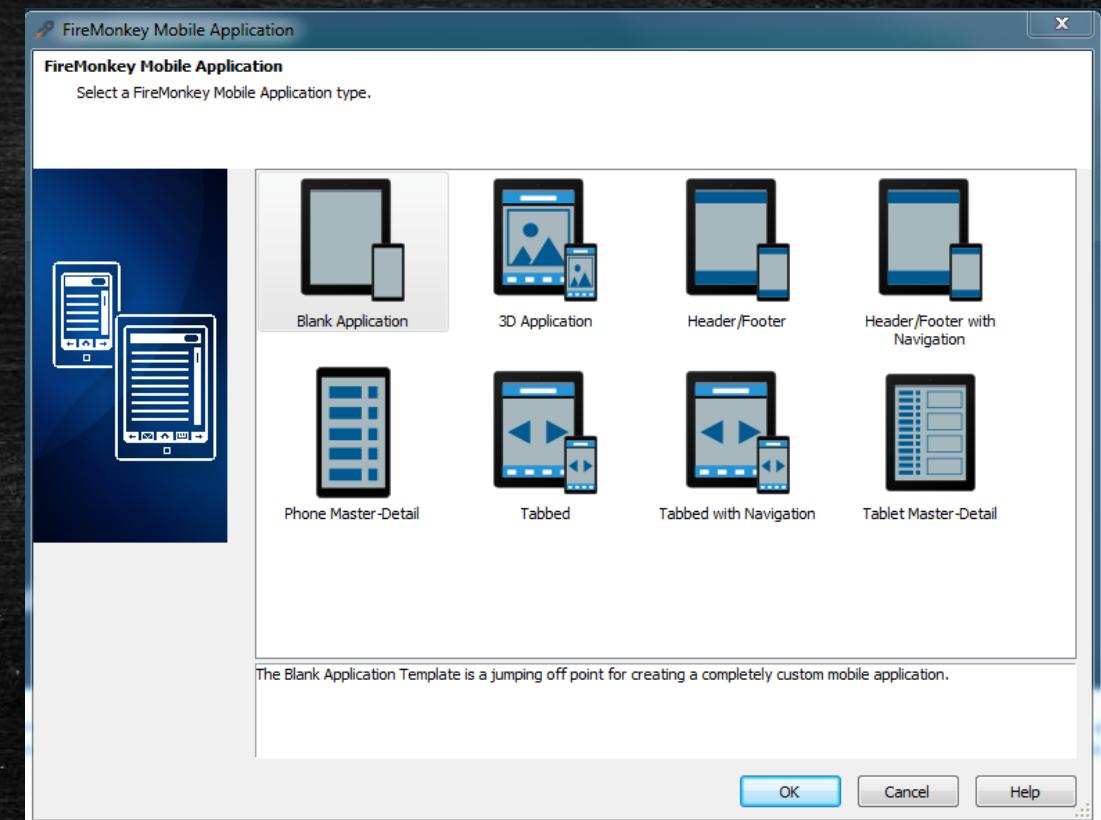
| | | | | |
|--------------|---|---|---|---|
| Languages | ISO C++11 or Object Pascal | | | |
| Framework | |  | | |
| Platform API | Win32/64 | Cocoa | Cocoa | NDK/SDK |
| os |  |  |  |  |
| | Desktop | | Mobile | |

Develop Apps using Components and Code

- A single codebase
- Natively compiled apps
- iOS and Android native style
- Full access to the operating system and the hardware
- Component model
 - Properties
 - Methods
 - Events
- Visual and Non-Visual components

Your First “Hello World” app

- File | New | FireMonkey Mobile Application (C++ or Object Pascal)
- Application form
 - Standard UI controls
 - TabControls
 - Layouts
 - Anchors
 - Alignments
 - Gestures/Touch
- Tools | Options | Form Designer
 - Device Manager



Samples and Snippets

- Mobile Samples
- Mobile Snippets
- C++ and Object Pascal
- Samples are Subversion aware
 - C:\Users\Public\Documents\Embarcadero\Studio\14.0\Samples
 - http://sourceforge.net/p/appmethod/code/HEAD/tree/branches/Appmethod_114W/
 - http://sourceforge.net/p/radstudiodemos/code/HEAD/tree/branches/RadStudio_XE6/

Let's take a look at some samples

- DatePicker
- TimePicker
- CustomPicker
- TabSlideTransition
- ScrollableFormDemo

Let's Get Started on the Business Mobile App

- File | New | FireMonkey Mobile Application
 - Tabbed project template
- Decorate the front page and the tabs and tab pages
 - Toolbar
 - Tabs
 - Customers
 - Employees
 - Parts
 - Settings

Lesson 1 Review

- Setting up your development environment
- Customers, Orders, Parts, Employees business scenario
- The IDE
- Your first app
- Samples and Snippets
- Getting started on the mobile app

Resources

- Docwiki
 - http://docwiki.appmethod.com/appmethod/1.14/topics/en/Main_Page
 - http://docwiki.embarcadero.com/RADStudio/XE6/en/Main_Page
- Setting up your development environment
 - [http://docwiki.appmethod.com/appmethod/1.14/topics/en/Mobile_Tutorial:_Set_Up_Your_Development_Environment_on_the_Mac_\(iOS\)](http://docwiki.appmethod.com/appmethod/1.14/topics/en/Mobile_Tutorial:_Set_Up_Your_Development_Environment_on_the_Mac_(iOS))
 - [http://docwiki.appmethod.com/appmethod/1.14/topics/en/Mobile_Tutorial:_Set_Up_Your_Development_Environment_on_Windows_PC_\(iOS\)](http://docwiki.appmethod.com/appmethod/1.14/topics/en/Mobile_Tutorial:_Set_Up_Your_Development_Environment_on_Windows_PC_(iOS))
 - [http://docwiki.appmethod.com/appmethod/1.14/topics/en/Mobile_Tutorial:_Set_Up_Your_Development_Environment_on_Windows_PC_\(Android\)](http://docwiki.appmethod.com/appmethod/1.14/topics/en/Mobile_Tutorial:_Set_Up_Your_Development_Environment_on_Windows_PC_(Android))
- FireMonkey
 - http://docwiki.appmethod.com/appmethod/1.14/topics/en/FireMonkey_Platform_Prerequisites
 - http://docwiki.appmethod.com/appmethod/1.14/topics/en/FireMonkey_Applications_Guide
 - http://docwiki.appmethod.com/appmethod/1.14/topics/en/FireMonkey_Quick_Start_Guide_-_Introduction
- Tutorials
 - http://docwiki.appmethod.com/appmethod/1.14/topics/en/Tutorial:_Using_the_IDE
 - [http://docwiki.appmethod.com/appmethod/1.14/topics/en/Mobile_Tutorials:_Mobile_Application_Development_\(iOS_and_Android\)](http://docwiki.appmethod.com/appmethod/1.14/topics/en/Mobile_Tutorials:_Mobile_Application_Development_(iOS_and_Android))
- Blogs
 - <http://blogs.embarcadero.com/>
 - Jim McKeeth - <http://delphi.org/>
 - Sarina Dupont - <http://blogs.embarcadero.com/sarinadupont/>

Note: <http://docwiki.appmethod.com/appmethod/1.14/topics/en/...> = <http://docwiki.embarcadero.com/RADStudio/XE6/en/...>

Homework & Next Time

- Try out the different project templates
- Explore the IDE
- Take a look at the samples, snippets and videos
- Lesson 2 - Turning up the Style and Data!
 - Styles
 - http://docwiki.appmethod.com/appmethod/1.14/topics/en/Customizing_FireMonkey_Applications_with_Styles
 - TListBox and TListView
 - <http://docwiki.appmethod.com/appmethod/1.14/libraries/en/FMX.ListBox.TListBox>
 - <http://docwiki.appmethod.com/appmethod/1.14/libraries/en/FMX.ListView.TListView>
 - LiveBindings
 - http://docwiki.appmethod.com/appmethod/1.14/topics/en/LiveBindings_in_Appmethod
 - PrototypeBindSource
 - <http://docwiki.appmethod.com/appmethod/1.14/libraries/en/Data.Bind.ObjectScope.TPrototypeBindSource>

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Q&A

Thank You 😊

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