

## LongRange Runtime Version 15 (RV15)

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## Local Data storage

Applies to LANSAs and RPG development for all device types.

The ability to store data locally (on the client device) is a foundation for building offline applications.

Using local data may also improve performance and user experience in online applications.

Understanding the new local data features is vital if you want to create applications that can display, edit and collect new data or images when the user's device is not connected to the internet.

## Local Forms and Web Views

Applies to LANSAs and RPG development for all device types.

The ability to define local form and webviews is another foundation for building offline applications.

Local forms may also exhibit better performance and user experience than online applications do.

Understanding the new local form and web view features is vital if you want to create applications that can display, edit and collect new data or images when the user's device is, or is not, connected to the internet.

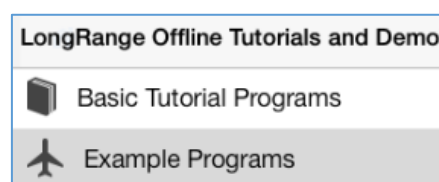
**These new local data and form features are a big topic.**

**Please contact your LongRange vendor for more detailed information.**

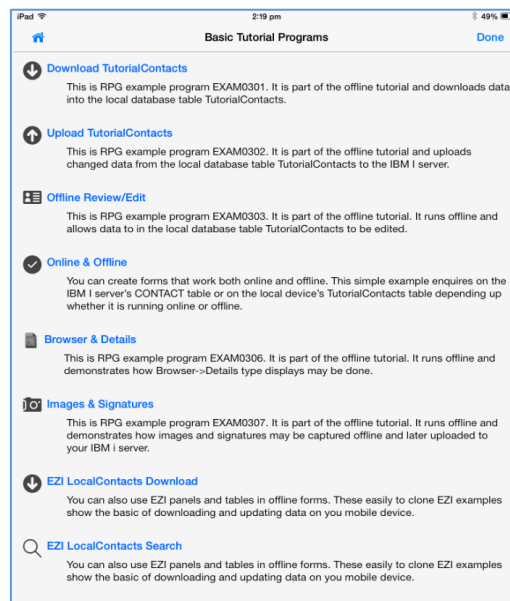
Also look in the new LongRangeOfflineDemo (RPG developers) and LANSOfflineDemo (LANSAs developers) shipped schemas for examples and tutorials.

You can get the accompanying tutorial steps and notes from your LongRange vendor - or by requesting them through the LongRange support forum <http://longrange.lansa.com.au/>

As an example, the new LongRangeOfflineDemo (RPG) has these two main menu items:



## BASIC TUTORIAL PROGRAMS



## EXAMPLE PROGRAMS



### **EZI panels, tables, button bar, message bar and image bar**

Applies to RPG development for all device types.

The EZI interface has been expanded to include new panel features, EZI tables, EZI button bars, EZI image bars and EZI message bars. See the new EZI Examples menu under the Programming Examples menu:

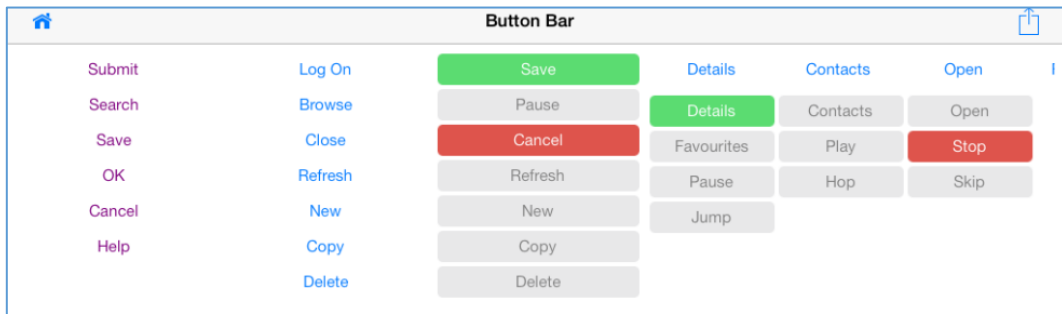
## PANELS

Quick Panels II		Change Layout	Change Style
CUSTOMER DETAILS (PANEL1)		ORDER DETAILS (PANEL2)	
Full Name	Joe Bloggs & Associates	Order Number	56373-88373N
Street Address	156 Lower Smith Street	Customer Address	ACME, Smith and Buchanon and Sons Engineering and Manufacturing
City or Town	New York	Ship Order To	121 Smith Street Via Sometown Into SomePlace
Zip Code	10212	Comments	Class aptent taciti socio ad litora torquent per conubia nostra, per inceptos hymenaeos. Sed venenatis. In lobortis, elit et ullamcorper hendrerit, metus ante tristique odio, vel posuere dui ligula eget ipsum. Nulla egestas lectus eu quam. Nam volutpat. Q
Phone Number	6373-373737	Status	Open
Email Address	joe@Bloggs.associates.com		
Region	Oceania		
Account Manager	Brian Jones		
Account Status	Active		
BANK DETAILS (PANEL3)			
Bank Name	A.C.M.E		
Branch	North Sydney		
Account Name	Georgina Romero		
Account Number	326066-5602549488		
Credit Limit	5,999,999		
Funds Available	5,000,000		

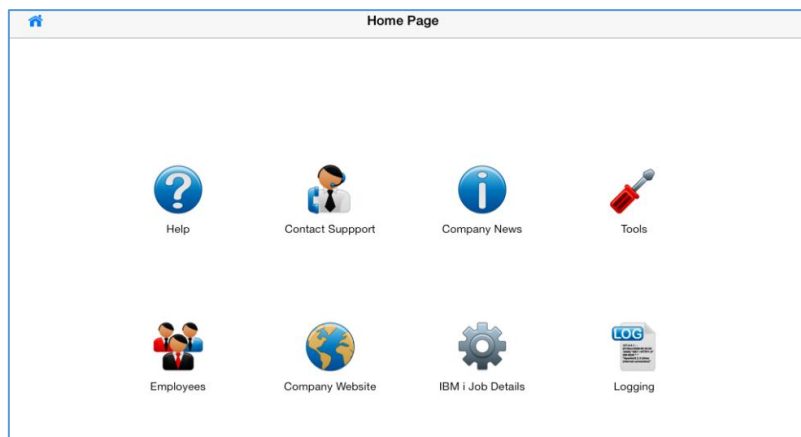
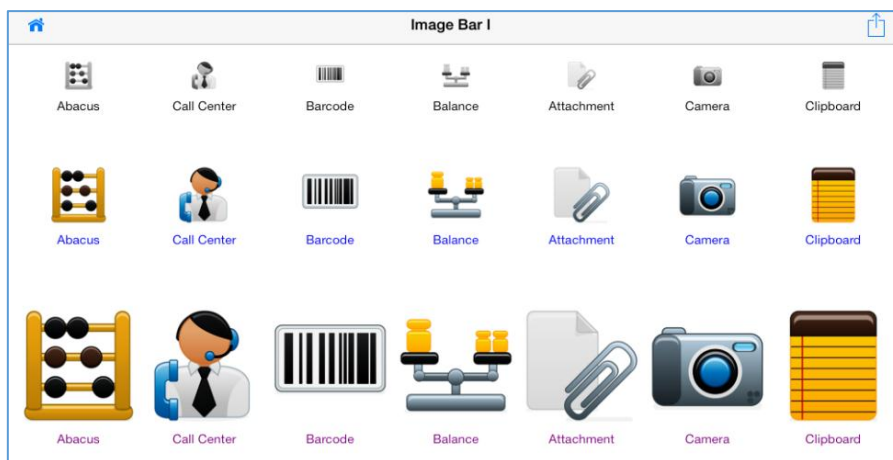
## TABLES

Quick Tables II				Values
Table 1 - touch a row				
Full Name	Street Address	Country	Phone Number	
Guthrie, Larissa B.	P.O. Box 572, 5480 Eget St.	Guinea-bissau	70827680	
Martinez, Yetta W.	583 Rutrum Ave	Palau	94860680	
Landry, Thaddeus P.	569-4890 Dignissim. Street	Saint Kitts and Nevis	22761694	
Edwards, Brittany G.	Ap 804-4147 Nulla Road	Libyan Arab Jamahiriya	82960776	
Logan, Kaitlin J.	Ap 373-3470 Quam, St.	Eritrea	82363520	
Morrison, Basia E.	Ap 386-3761 Blandit Street	Bahrain	60253164	
Griffith, Quon H.	3127 Nostra, Rd.	United Arab Emirates	36584232	
Meyers, Roth T.	1476 Sapien. Street	Eritrea	83688904	
Tran, Maisie U.	P.O. Box 436, 9364 Nisl Rd.	Iceland	32374892	
Meyer, Anthony Y.	859-2455 Orci, Avenue	Gabon	54121184	
Conway, Xerxes H.	Ap 116-8007 Tellus, Rd.	Mauritius	78882304	
Table 2		Table 3 - Scroll sideways to View - Touchable		
Name	Address	Name	Country	Column 3
Guthrie, Larissa B.	P.O. Box 572, 5480 Eget St.	Guthrie, Larissa B.	Guinea-bissau	xxxxxxxx
Martinez, Yetta W.	583 Rutrum Ave	Martinez, Yetta W.	Palau	xxxxxxxx
Landry, Thaddeus P.	569-4890 Dignissim. Street	Landry, Thaddeus P.	Saint Kitts and Nevis	xxxxxxxx
Edwards, Brittany G.	Ap 804-4147 Nulla Road	Edwards, Brittany G.	Libyan Arab Jamahiriya	xxxxxxxx
Logan, Kaitlin J.	Ap 373-3470 Quam, St.	Logan, Kaitlin J.	Eritrea	xxxxxxxx
Morrison, Basia E.	Ap 386-3761 Blandit Street	Morrison, Basia E.	Bahrain	xxxxxxxx
Griffith, Quon H.	3127 Nostra, Rd.	Griffith, Quon H.	United Arab Emirates	xxxxxxxx
Meyers, Roth T.	1476 Sapien. Street	Meyers, Roth T.	Eritrea	xxxxxxxx
		Tran, Maisie U.	Iceland	xxxxxxxx
		Meyer, Anthony Y.	Gabon	xxxxxxxx
		Conway, Xerxes H.	Mauritius	xxxxxxxx
		Clay, Allen W.	Eritrea	xxxxxxxx
		Bolton, Tana J.	Luxembourg	xxxxxxxx
		Crawford, Julian Q.	Tuvalu	xxxxxxxx

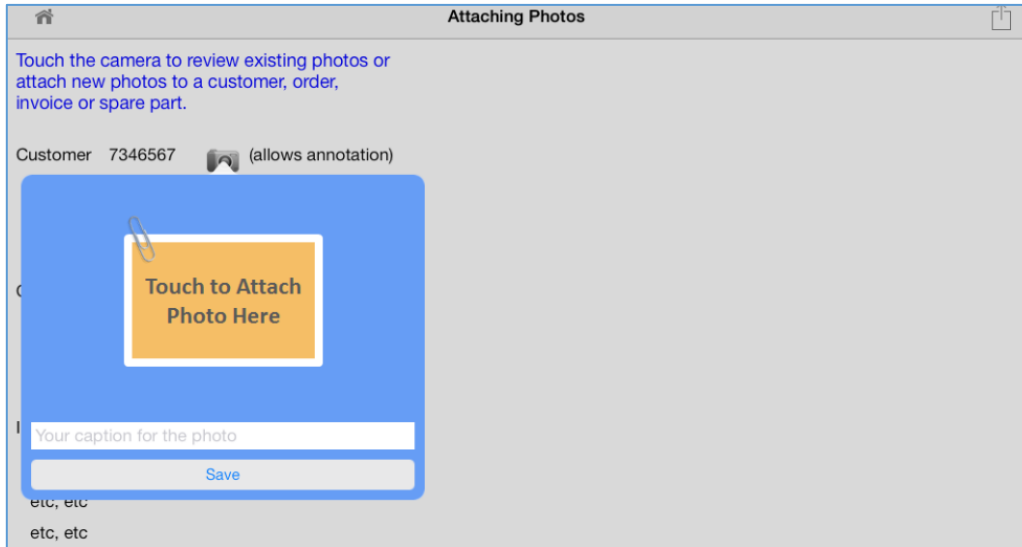
### BUTTON BARS



### IMAGE BARS








### All new Employees Demo

Applies to RPG development for all device types.  
The new demo makes extensive use of EZI components:

🏠
Oswaldo Walsh
Save Changes Discard Changes


**A** Oren Vermaak - DEMOUSR230

**B**  948 Quaking Bayoo 1949  
Ransom village MARYLAND  
Home Phone:926-314-7573  
Work Phone:926-314-7573  
Home E-mail:oren8803@rushpost.com  
Work E-Mail:branden146@the-quickest.com

**C**

**D**

**E** Orval Kox - DEMOUSR101


**F**  P.O. Box 88378 44168  
Astatula MARYLAND  
Home Phone:933-119-5557  
Work Phone:933-119-5557  
Home E-mail:kox3360@imap.cc  
Work E-Mail:perez4616@emailuser.net

**G**

**H**

**I**

**J** Oswaldo Walsh - DEMOUSR440

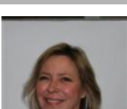
**K**  *O. Walsh* 24 Velvet Land 69803  
Carson River Valley MARYLAND  
Home Phone:582-642-6349  
Work Phone:582-642-6349  
Home E-mail:walsh3238@reallyfast.info  
Work E-Mail:samuel\_potts7696@mailworks.org

**L**

**M**


**N**

**O** Otha Woodward - DEMOUSR17




**P**  256 Wagon Fair 32092  
East Islip MARYLAND  
Home Phone:956-884-1424

Oswaldo Walsh - DEMOUSR440

LATEST PHOTO



USER DETAILS

First Name	Oswaldo
Last Name	Walsh
Sex	Female
Mobile	050-2190476 
Role	Permanent
Birth Date	1973-05-12
Employ Date	2010-03-04
Notes	
Images	

HOME CONTACT DETAILS

Address 1 356 Thunder Hickory


### All new RPG Building Blocks

Applies to RPG development for all device types.


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The shipped building block template programs have been revamped to use the upgraded EZI interface.


 RPG Building Blocks
Done

 **Find "Things"**


This building block is program SEARCHSEL in the LRNG\_PROJ library. It is a building block (or template or skeleton) for a search and select form view – essentially a way to find “things” – where “things” are classic business instruments like orders, products, invoices, etc. Copy program SEARCHSEL as a starting point for search and select style form views.

 **Flat Panel Display**

This building block is program DETAILER2 in the LRNG\_PROJ library - a basic flat panel details display. Copy program DETAILER2 as a starting point for a basic 'flat panel' displays of data.

 **Header-Detail Display**


This building block is program DETAILER3 in the LRNG\_PROJ library - a basic header-detail display. Copy program DETAILER3 as a starting point for a basic 'header-details' display of data.

 **Detail-Detail Display**


This building block is program DETAILER4 in the LRNG\_PROJ library - a basic detail-detail display. Copy program DETAILER4 as a starting point for a basic 'details-details' display of data.

 **Secondary Logon**


This building block is program LOGONUSER in the LRNG\_PROJ library. . It demonstrates how you can put a secondary logon capability into your Apps. You may do this for additional security, to force user to logon again after inactivity or to allow mobile devices to be shared by different users.

 **Secondary Logoff**

Creating form view to handle a log off is easy – just 5 lines of RPG code are required.

 **User Messages**

This building block is program USERMSGs in the LRNG\_PROJ library. It demonstrates how you can put a corporate 'your messages' type of display into your Apps. The messages leverage the IBM i server's native message queue facility so it can be integrated with your existing IBM i applications.

 **Home Page**


This building block is program USERINFO in the LRNG\_PROJ library. It demonstrates how you can put a corporate welcome / information capability into your applications. Typically information like this is used to welcome a user after they logon. It often allows them to access corporate resources, application usage help text and indicates how to request

## Copy to the Clipboard

Applies to LANSAs and RPG development for all device types.

The new run operation CopyToClipboard allows you to programmatically copy *selected and formatted* data onto the user's clipboard.

Look in the new LongRangeDemo (RPG) and LANSADemo (LANSAs) shipped schemas for examples.

 **Copying to the Clipboard**

You can programmatically format data and copy it to the mobile device's clip board.

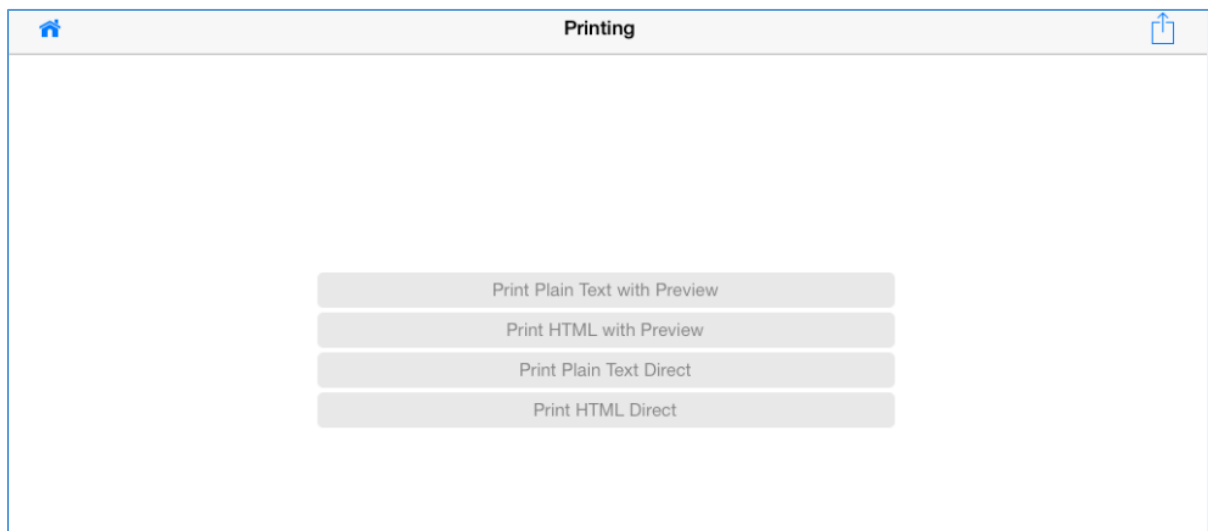
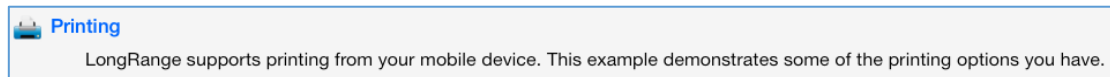
## Printing from the Device

Applies to LANSAs and RPG development for all device types.

The new run operation Print allow you you to programmatically print text, HTML and images from your server side programs. On iOS AirPrint is supported (<http://support.apple.com/kb/HT4356>).

On Android many types of printer support are now possible using aosp supplied by the printer manufacturer or one of the generic cloud based printer services.

Look in the new LongRangeDemo (RPG) and LANSADemo (LANSA) shipped schemas for examples.

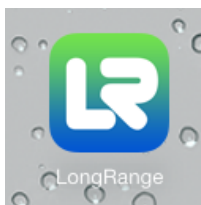


## iOS7 look

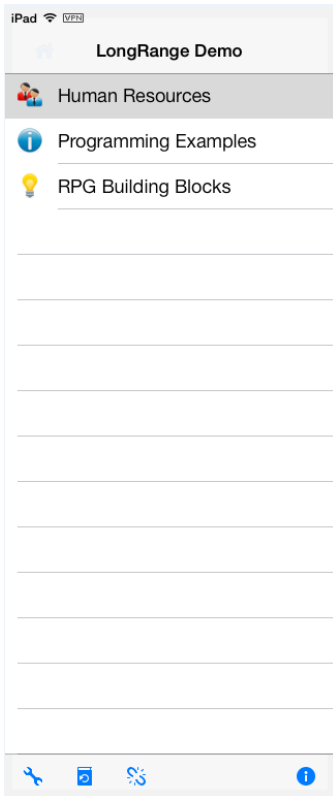
Applies to LANSAs and RPG development for iPods, iPads and iPhones.

LongRange on iPods, iPads and iPhones now presents with the new iOS7 flat look. Some of the changes you will notice when using the new iOS7 version on an iOS7 device are:

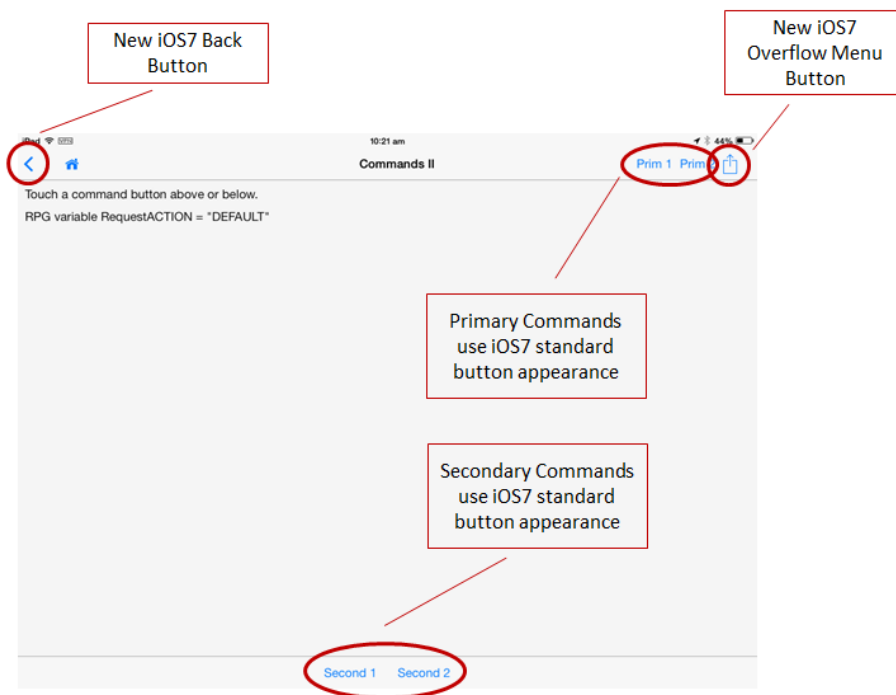
LongRange itself has a new 'flat' iOS7 style icon:



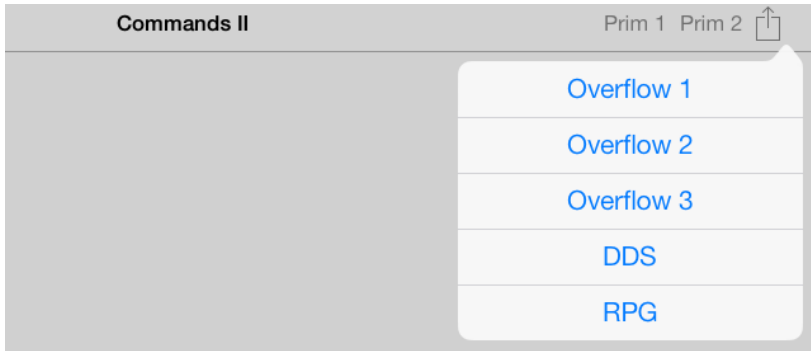
The appearance of menus has changed slightly and the icons are now blue:



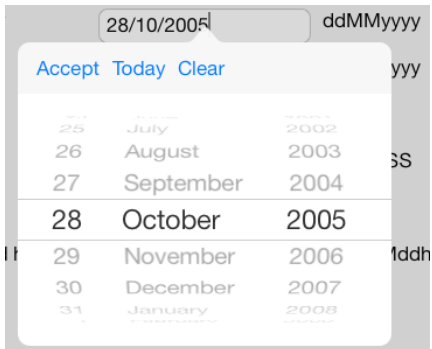
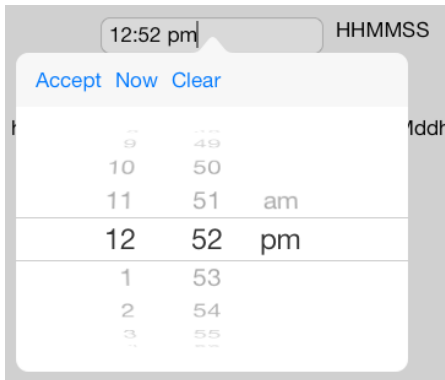
Command buttons and icons have changed to use the new iOS7 standard:



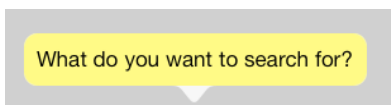
Overflow menus have a new iOS7 appearance:



New iOS7 date and time pickers:

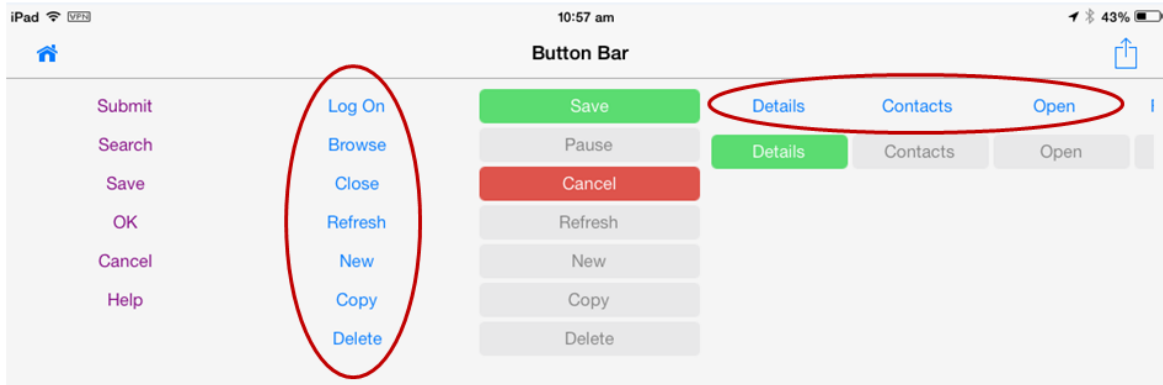


Popovers no longer have borders:



iOS7 push buttons now appear as blue text by default - unless you have altered their characteristics:





### 3000 Images

Applies to LANSA and RPG development for all device types.

LongRange now ships with around 3000 icons and images in an array of sizes and styles.

You are free to use these images in LongRange applications:



### New numeric editing rules

Applies to LANSA and RPG development for all device types.

Text boxes and labels now ship with new properties that allow tighter control of numeric display and input rules (eg: maximum decimals, maximum digits, type of decimal sign, etc).

Look for this new online documentation:

<code>MaxIntDigits</code>	<u>NumberTextFormat</u> – Specifies the maximum number of digits that the textbox would accept for the integral part of the number.
<code>MaxFracDigits</code>	<u>NumberTextFormat</u> – Specifies the maximum number of digits that the textbox would accept for the fractional part of the number.
<code>MinIntDigits</code>	<u>NumberTextFormat</u> – Specifies the minimum number of digits that must be present (for the integral part of the number), '0' would be padded if required.
<code>MinFracDigits</code>	<u>NumberTextFormat</u> – Specifies the minimum number of digits that must be present (for the fractional part of the number), '0' would be padded if required.
<code>ShowSign</code>	<u>NumberTextFormat</u> – Specifies how the sign should be displayed. Possible values: <ul style="list-style-type: none"> <li>• NEVER - never include signs</li> <li>• NEG - include signs only when minus</li> <li>• ALWAYS - always include signs (plus and minus)</li> </ul>
<code>SignPos</code>	<u>NumberTextFormat</u> – Specifies where the sign should be displayed. Possible values: <ul style="list-style-type: none"> <li>• BEGINNING - beginning of the number (e.g. -25)</li> <li>• END - end of number (e.g. 25-)</li> </ul>
<code>ShowDecimalPt</code>	<u>NumberTextFormat</u> – Specifies when the decimal point should be displayed. Possible values: <ul style="list-style-type: none"> <li>• NEVER - never include decimal point (e.g. 20.56 would be presented as 2056)</li> <li>• ASREQUIRED - only include if there are decimal digits.</li> <li>• ALWAYS - always include decimal point regardless of decimal digits.</li> </ul>
<code>Locale</code>	<u>NumberTextFormat</u> – specifies whether to use <code>INVARIANT</code> locale or <code>CURRENT</code> locale when determining how to present the decimal separator. Possible values: <ul style="list-style-type: none"> <li>• <code>INVARIANT</code> (happens to be English)</li> <li>• <code>CURRENT</code> (current locale of the device)</li> </ul>

### Linea Pro 5 support – including magnetic stripe reading

Applies to LANSAs and RPG development for all iPods and iPhones.

LongRange's support for the Linea Pro 4 bar code reader has been extended to the new Linea Pro 5 bar code reader and magnetic card reader. See <http://ipccprint.com/ios-peripherals/linea-pro-5.html>

### New iOS camera bar code scanner

Applies to LANSAs and RPG development for iPods, iPads and iPhones.

The camera bar code scanner for iPods, iPads and iPhones has been upgraded to use ZBar.

### New Webview options for back key handling

Applies to LANSAs, RPG and JavaScript Webview development for Android devices.

Refer to the new `ConsumeSysBackButton` property of the `WebView` element.

### Lrex URL format for Android web views

Applies to JavaScript `WebView` development for Android devices.

By default a web page launched via `window.open()` or a hyperlink will open in the same `WebView`.

You can cause the page to open in a real browser window by prefixing the URL with lrex. For example:

```
<a href="lrexhttp://www.lansa.com">Using a hyperlink</a>
<button onclick="window.open('lrexhttp://www.lansa.com')">
```

### Launch PDF reader from Android web view

Applies to LANSA, RPG and JavaScript Webview development for Android devices. PDF documents may now be now opened in an installed PDF reader on Android.

### New web view events

Applies to JavaScript WebView development for all device types.

The events are onGoBack, onGoForward and onRefresh.

Note: If you have *Programming LongRange with JavaScript* please ask your LongRange vendor for the latest version.

### Multiple map pins

Applies to LANSA and RPG development for all device types.

You can now position and label multiple location pins on a map. Look in the new LongRangeDemo (RPG) and LANSADemo (LANSA) shipped schemas for examples.

### Autostart property for barcodes on Android

Applies to LANSA and RPG development for Android devices. The autostart property now works on Android devices.

### Camera flash support on Android

Applies to LANSA and RPG development for Android devices.

The user may now manually turn on/off the flash on the camera

### Pick from Gallery photo option on Android

Applies to LANSA and RPG development for Android devices.

You can now source an image from the device's camera or from its gallery.

### Specify properties common to all rows of a Table element once.

Applies to LANSA development for all device types.

If you have a table on your form where the same properties are specified for every row, you can now specify them just once, using the new parameters TableName and TableCol.

For example, if the same dropdown was to appear on every row of a table, you could add the dropdown once, using:

```
#COM_OWNER.Set_Dropdown Tablename('Table1') TableCol_N(5) Onvaluechange(VALUECHANGE)
```

```
#COM_OWNER.Set_Dropdown Tablename('Table1') Tablecol_N(5) Item_N(1) Item_Text('A')  
Item_Value(A)  
#COM_OWNER.Set_Dropdown Tablename('Table1') Tablecol_N(5) Item_N(2) Item_Text('B')  
Item_Value(B)  
#COM_OWNER.Set_Dropdown Tablename('Table1') Tablecol_N(5) Item_N(3) Item_Text('C')  
Item_Value(C)
```

See LREX0004 for details