



Mobile Development

Deep Dive

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Acumatica | acumatica.com/developers

Agenda

- Mobile Framework
 - Behind Scenes
 - Customizations & App Install
- Demo
 - GI & Dashboard creation
 - Mobile Notification
 - Selectors & Scan fields
 - Workflows Mobile
- Overview
 - Tips
 - Overview

Acumatica Mobile Framework

Acumatica Mobile Framework

Key Features:

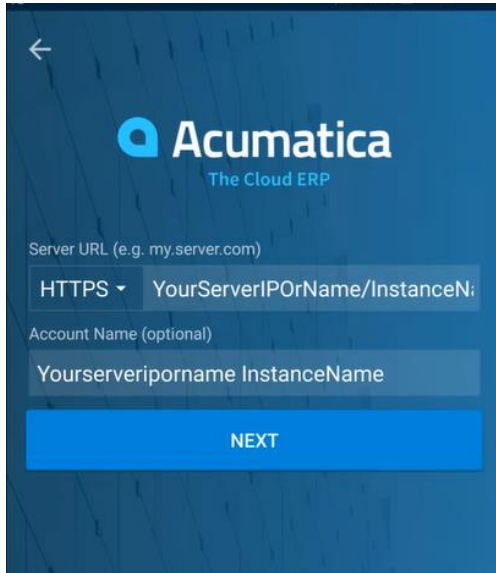
- Real-time access
- Mobile device integration
- Ease of Customization

Framework Components:

- The native mobile client application. (for iOS devices)
- The native mobile client application (for Android devices)
- The Mobile API

Acumatica Mobile App Setup

- Download Acumatica mobile app from Apple Store or Google Play.
- Install and launch the app
- Enter the URL and optional name of your Acumatica site
- Enter Credentials
- Sign In



←

Acumatica
The Cloud ERP

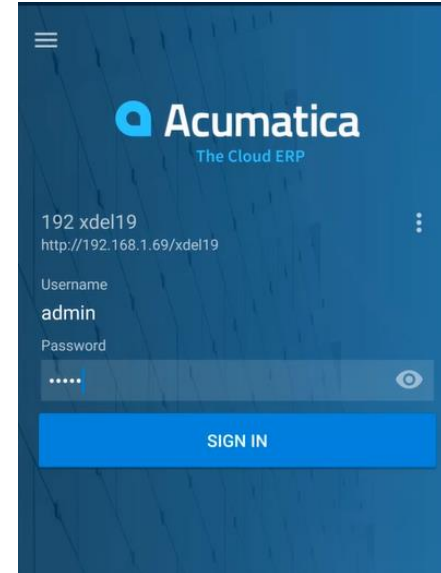
Server URL (e.g. my.server.com)

HTTPS ▾ YourServerIPOrName/InstanceN

Account Name (optional)

Yourserveriporname InstanceName

NEXT



☰

Acumatica
The Cloud ERP

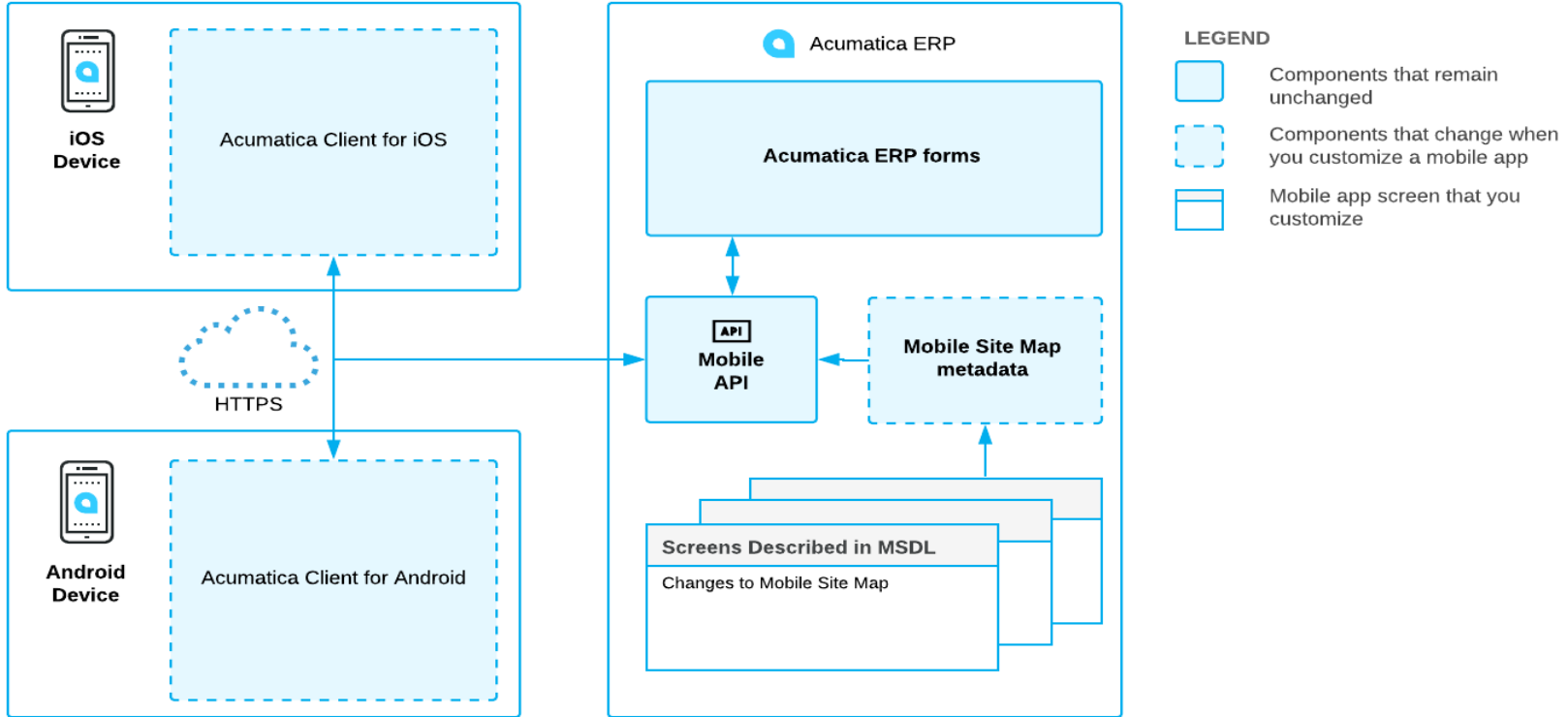
192 xdel19
http://192.168.1.69/xdel19

Username
admin

Password
.....

SIGN IN

Behind the Scenes



Acumatica Mobile Customization

- **User Interface Structure**

- Main Menu (Site Map)
- Sidebar Menu
- Screens

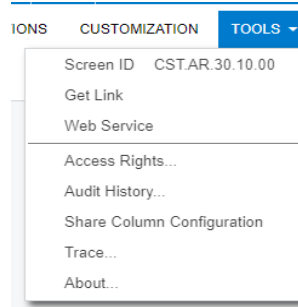
- **Mobile Site Map Definition Language (MSDL)**

- Instructions (Add, Remove, update, placeAt)
- Object Types (field, container, folder, screen)
- Constants (true, 'SomeString', 543)

Acumatica Mobile Customization

Getting the WSDL Schema:

- On the title bar of the form, click Tools > Web Service
- Click on Service Description



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The following operations are supported. For a formal definition, please review the [Service Description](#).

- [Login](#)
Logs in to the system
- [Logout](#)
- [SetLocaleName](#)
Changes the interface language accepting the name, such as "en-US" or "fr-CA"
- [SetBusinessDate](#)
Changes the business date
- [SetSchemaMode](#)
Instructs the system to extend results with element descriptors in subsequent calls

■ WSDL Schema:

- Containers
- Fields
- Actions

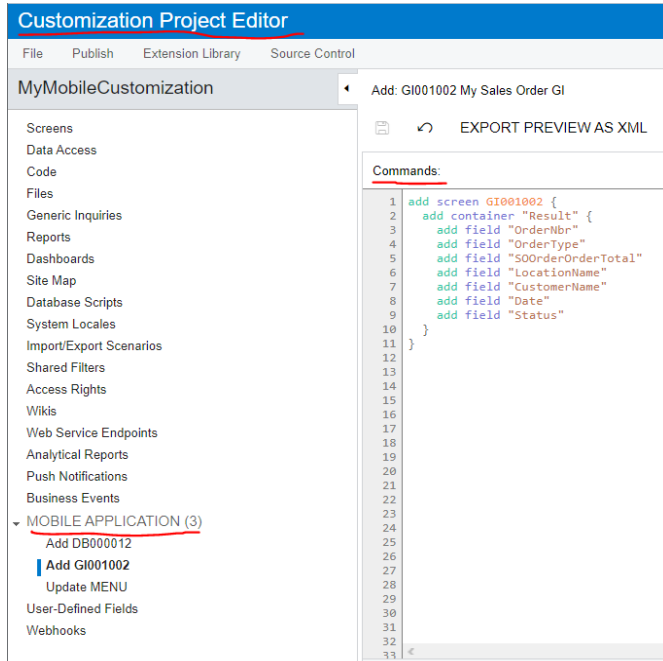
```
<w:complexType name="Actions">
  <w:sequence>
    <w:element minOccurs="0" maxOccurs="1" name="CancelCloseFolList" type="tns:Action"/>
    <w:element minOccurs="0" maxOccurs="1" name="SaveCloseFolList" type="tns:Action"/>
    <w:element minOccurs="0" maxOccurs="1" name="Save" type="tns:Action"/>
    <w:element minOccurs="0" maxOccurs="1" name="Cancel" type="tns:Action"/>
    <w:element minOccurs="0" maxOccurs="1" name="Insert" type="tns:Action"/>
    <w:element minOccurs="0" maxOccurs="1" name="Delete" type="tns:Action"/>
    <w:element minOccurs="0" maxOccurs="1" name="CopyDocumentCopyPaste" type="tns:Action"/>
  </w:sequence>
</w:complexType>
...
<w:complexType name="InvoiceSummary">
  <w:sequence>
    <w:element minOccurs="0" maxOccurs="1" name="DisplayName" type="s:string"/>
    <w:element minOccurs="0" maxOccurs="1" name="Type" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="ReferenceNbr" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="Status" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="Hold" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="Date" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="PostPeriod" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="CustomerOrder" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="CurryViewState" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="Description" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="Customer" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="Location" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="Currency" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="Terms" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="DueDate" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="RetainageInvoice" type="tns:Field"/>
    <w:element minOccurs="0" maxOccurs="1" name="ApplyRetainage" type="tns:Field"/>
  </w:sequence>
</w:complexType>
```


Demo I

GI & Dashboard creation

MSDL Code (Instructions, Object Types, Constants)

- Create a new screen



The screenshot shows the 'Customization Project Editor' interface. The left sidebar contains a tree view of project elements, with 'MOBILE APPLICATION (3)' expanded to show 'Add GI001002'. The main workspace displays the MSDL code for adding a screen named 'GI001002' with a container 'Result' and several fields: 'OrderNbr', 'OrderType', 'SOrderOrderTotal', 'LocationName', 'CustomerName', 'Date', and 'Status'. The code is as follows:

```
1 add screen GI001002 {
2   add container "Result" {
3     add field "OrderNbr"
4     add field "OrderType"
5     add field "SOrderOrderTotal"
6     add field "LocationName"
7     add field "CustomerName"
8     add field "Date"
9     add field "Status"
10  }
11 }
12
13
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33
```

- Creating a new Dashboard (Widgets supported: Chart, Data Table, Score Card, Trend Card)

```
add screen DB000012 {
  type = Dashboard
}
```

- Updating Mobile Sitemap sample

```
update sitemap {
  add item "GI001002" {
    displayName = "My Sales Order GI"
    icon = "system://Box1"
  }
  add item "DB000012" {
    displayName = "Sales Operations"
    icon = "system://Graph1"
  }
}
```

Adding Mobile Notifications to Customization

- Create Mobile Notification

The screenshot shows the 'Mobile Notifications' configuration interface. It includes fields for:

- Notification ID: My Test Notification
- Screen: DB Opportunities
- Delivery Method: Push
- Screen ID: G000026
- Destination Screen ID: Opportunities
- Destination Entity ID: ((CROpportunity_ownerID))
- Description: My Test Notification
- To: ((CROpportunity_ownerIDPKID))
- Title: ((CROpportunity_ownerID_description))

Below the fields is a 'MESSAGE' section with 'INSERT DATA FIELD' and 'INSERT PREVIOUS DATA FIELD' options. A data field example is shown: ((CROpportunity_amount)).

- Create Business Event with Mobile Push Notification Subscriber

The screenshot shows the 'Business Events' configuration interface. It includes fields for:

- Event ID: MYTEST
- Type: Trigger by Record Change
- Raise Event: For Each Record
- Group Records By: MyTest
- Screen Name: DB Opportunities
- Screen ID: G000026
- TRIGGER CONDITIONS: SUBSCRIBERS
- CREATE SUBSCRIBER: +
- Subscriber ID: My Test Notification
- Type: Mobile Push Notification

The interface also shows a 'VIEW SCREEN' and 'VIEW HISTORY' section, and a 'STOP ON ERROR' checkbox.

Adding Mobile Notifications to Customization

- Add Business Event to your Customization Project

The screenshot displays the 'Customization Project Editor' interface. The main window is titled 'Business Events' and contains a table with the following structure:

Object Name	Descript
> MYTEST	

On the left-hand side, a navigation pane lists various customization categories. The 'Business Events (1)' category is highlighted with a red box. In the main window, a red box highlights the '+' icon in the toolbar, and another red box highlights the 'Object Name' header of the table.

Selectors & Scan fields

Selector Field:

- Selector property
- PickerType
- Adding Selector to Grid Control on Mobile:
 - RowTemplate

Scan Field:

- Special property
- recordAction with BarcodeCameraScan behavior
- Sound Alert field

Workflows and Mobile

Mobile App Demo

Acumatica Mobile Framework

Overview:

- Inspect the WSDL Schema
- Mobile Application Page
- Add & Update screens in Mobile App
- Expose Dashboard to Mobile App
- Make changes to Mobile Sitemap
- GI Navigation in Mobile
 - Set Navigation on GI (web)
 - Map the “EditDetail” action (Mobile)
 - Destination Screen mapped (Mobile)

Tips:

- Build new (Large)screens by sections.
- Logout of the Mobile App to test latest changes.
- Names in WSDL schema usually match the label name
- When troubleshooting a screen error,
 - reduce it to a few fields only
 - reduce the screen graph to dataviews only
 - reduce DAC to main fields (remove non-essential attributes)

Developer Resources

- ❑ Free Mobile Developer Training (T400 & T410)
 - ❑ <https://www.acumatica.com/acumatica-developer-training/>

- ❑ Acumatica Help site:
 - ❑ <https://help.acumatica.com>
 - ❑ Select a version
 - ❑ Under “Developer” section
 - ❑ Select “Mobile Framework Guide”

Questions

Call to Action

- Get Involved in our Developer Community!
- Join us on **stackoverflow**: <https://stackoverflow.com/questions/tagged/acumatica/>
- Check <https://www.acumatica.com/developers/> regularly!
- Read our developer blogs: <https://www.acumatica.com/blog/category/developers/>
- Contribute to Community Projects: <https://github.com/acumatica/>
- Attend Summit 2021 | Hackathon 2021: <https://summit.acumatica.com/>
- eMail (mfranks@acumatica.com) if you have any questions or have ideas to improve



Thank You!

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