

# Native mobile app builder for IBM i developers

Build and maintain native mobile apps for Apple iOS and Android using IBM i development tools and methods. LongRange does not require any programming on the mobile device to use features such as photos, videos, audio recordings, documents, maps and geo-location in IBM i applications. Developers don't have to learn any new programming languages such as Objective C (Apple), Java (Android) or other coding techniques like HTML, CSS and JavaScript.

# Timely and cost effective mobile application development

LongRange encourages results oriented programming as it allows developers to concentrate on business requirements and not mobile device technology. This means that the total-costof-ownership for a mobile app becomes a viable proposition, especially for companies without any previous experience in developing apps for mobile devices.

**No new skills required** – you only need RPG, COBOL or CL with DDS and you're already an expert with these!

**Short time-to-market** – significantly reduce the time to design, program and deploy native apps for multiple mobile platforms:

- Use IBM i programs on the server; no programming is required for the mobile device.
- The same programs will service both iOS and Android devices.
- The user interface of the LongRange native mobile app automatically reshapes and resizes to accommodate different screen sizes (e.g. smart phones versus tablets).

**Low total-cost-of-ownership** – maintaining and extending native apps using familiar development skills will be as easy in the future as it is today:

- No additional cost of hiring and retaining developers with specialized mobile app development skills.
- You only need to maintain one set of RPG, COBOL or CL with DDS source code to support multiple mobile platforms.

**Rapid return on investment** – quickly deliver easy-to-use native mobile apps with a rich user interface and enhance your users' productivity.



Example of native mobile apps developed with only RPG, DDS and LongRange.

- Reduced ongoing maintenance costs same source code for both iOS and Android.
- Minimal developer learning curve no need to learn mobile specific programming.

Using LongRange, companies can develop and deploy apps for mobile devices quickly. The time-to-market is short as development is incremental and evolutionary.

# Speed up mobile app development

LongRange allows developers to start developing the business logic and database without having to develop the services the LongRange mobile app provides (e.g. touch enabled user interface). Developers are productive immediately because they can use the same interactive programming model they already use and are well equipped to trace and debug intuitively.

## Use your existing assets

LongRange has been designed to use your existing investments, infrastructure and developer skills and does not replace or change anything already in place or in use. LongRange works in your existing IBM i environment and requires no large upfront investments, OEM software, new hardware or operating system upgrades, or additional Windows or Linux servers.

LongRange compliments a commitment to IBM i development and is compatible with IBM product roadmaps.

# What is LongRange?

LongRange consists of server software (LongRange Server) and an app that runs natively on a mobile device (LongRange mobile app). Users download the app to their mobile device, connect to the server and are ready to use the business applications.

**The LongRange native mobile app** – provides the infrastructure for building business applications for mobile devices. Developers create programs using their existing tools and use LongRange Studio to add them into an application schema and deploy them to Apple iOS (iPhone and iPad) and Android devices.

Key features are:

- The user interface is extended with touch and enhanced visually for use on mobile devices.
- Apps can send and receive files between a mobile device and a server.
- IBM i programs can use capabilities provided by mobile devices, including the camera and geo-location services.

Developers can build business applications using only an RPG, COBOL or CL program with DDS in a form view, or composite business applications using combinations of form views, web views and document views.

**Application schemas** – define the static parts of a business application, including menus (captions and icons of the menu items), form views (tabs), web views, document views and the program to call when a user selects a menu item or requests an action.

**Screen management** – the IBM i program provides the screen layout and data content that the LongRange mobile app displays on a mobile device. Screen layouts adapt from portrait to landscape and landscape to portrait as the mobile device changes orientation. Screen layouts and content adjust when displayed on small (phone) or large (tablet) screen sizes. Developers do not need to design screen layouts and content for each screen size.

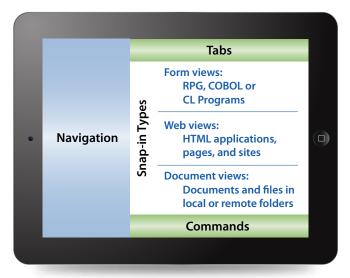
**Form views** – are typical forms that contain data and labels (text describing the data) and are screens generated by RPG, COBOL or CL programs with DDS.

**Web views** – use to include HTML applications, pages and sites as part of a composite application.

**Document views** – show documents and files in folders on a mobile device or on a server. Users can take photos and store them in folders, and accept documents from other apps on the mobile device and save them in folders on the device or a server.

# **Developer tools**

Developers can build business applications for mobile devices using their existing development tools and LongRange Studio. Use Programming Development Manager (PDM) and the Source Entry Utility (SEU) or IBM Rational Developer for Power Systems to develop the IBM i programs and LongRange Studio to define the static parts, such as the menus, icons, form captions, which program to call when a menu is selected, etc. The programs can



Components of the LongRange mobile app screen layout.

also call other programs on IBM i servers, use data queues, interact with the database, etc.

**Sample applications and templates** – included is an extensive collection of sample business applications and program templates. The sample applications range from the introductory "Hello World" style of application to fully functional applications. When you run a sample app you can see not only the screens and user actions, but also view the program code and data description specifications.

**Debugging** – developers can use their existing debugging tools. Therefore, finding and debugging errors in programs developed for LongRange is no different to finding and debugging errors in any other programs.

## **Deployment**

Deploying the LongRange mobile app is as simple as downloading the app from an app store and configuring communications with an IBM i server.

Updating the mobile app is the same as enhancing and maintaining any IBM i program. Once you deploy program updates to your production system they are immediately available to users of the LongRange mobile app, without having to download or update anything on the mobile device.

### Features

- LongRange native mobile app
- LongRange server
- LongRange developer studio
- Build native mobile apps
- Use familiar IBM i development tools to build business applications
- Automatically generate mobile app screens
- IBM i programs can use the capabilities of mobile devices, including the camera and geo-location
- Apps can send and receive files between a mobile device and a server
- · App templates and extensive code examples
- Multilingual and DBCS language support
- Use existing IBM i infrastructure
- Uses strong IBM i security
- TLS/SSL encryption

#### **Development environment**

- Programming Development Manager (PDM) and the Source Entry Utility (SEU) and/or IBM Rational Developer for Power Systems
- Developer workstation
- LongRange Studio
- An iPhone/iPad or Android device to test the programs

#### Requirements

- LongRange requires IBM i V5R3 or later, except when using Document views
- Document views require LongReach, which is an optional addition to LongRange
- · LongReach requires IBM i V5R4 or later

## For more information visit: www.longrangemobile.com

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