Walking Tour app – Research Document

Implementation

Location

Any application that makes use of the location of the phone must enable this capability. The user will be made aware of the fact that the application will be using location data and asked to confirm the installation of your application. This is to prevent malicious applications using location data without the agreement of the user.

The Geolocator class can be used to determine the location of a phone. It is found in the Windows.Devices.Geolocation namespace.

A program can create an instance of a GeoLocator and then use it whenever the location of the phone is required. This creates a new locator instance if one does not already exist. We can then use this to determine the position of the phone. The GeoPosition is in latitude and longitude.

Position Events

The above code works well if you want a program to just determine the position upon request, but you often want to be able to track the location of a device. The Geoposition class will do this for you. An event can be fired in your program when position of the phone changes by more than a set amount

Now that we can obtain our position in a program, the next thing to do is to display this. The XAML Map control is used to display maps in an application. We can find it in the ToolBox in the designer in Visual Studio and drag it onto the page we are editing. You can adjust the size and position of the map control on the screen by dragging the handles. Initially the map element has no name, but we can set one by using the properties window for the control.

The above version of the updateDisplay method will center the map on the position received from the GPS system. This can be used in the TrackMe application to display the location on a map, rather than as coordinates. The method extracts the Latitude and Longitude from the position data and uses these values to build a GeoCoordinate value called drawCoordinate. The Center of the map is then set to this coordinate. So that you can see more easily where you are the program also sets the zoom level of the map display.

**To display directions from the phone’s current location to a location on a map**

1. In **MainPage.xaml**, delete the entire **Grid** named LayoutRoot and replace it with the following code. This code adds a [LongListSelector](https://msdn.microsoft.com/en-us/library/windows/apps/microsoft.phone.controls.longlistselector(v=vs.105).aspx) control below the map control to display the directions between the two locations.

Audio Playback Agent

An application can also create an audio playback agent. This integrates with the normal playback controls and allows an application to play music when it is not running. A background agent project must be created and added to a Windows Phone solution in the same way as a background task.

Background Processing

The limitations imposed by the processor and battery life considerations make it hard for a device as small as a phone to run multiple processes. Windows PC users are familiar with a desktop cluttered with many different programs running simultaneously, but on a phone this is not practical, not least because the display is not large enough to show multiple applications.

The Windows Phone allows applications to contain “background tasks”. A background task can take over when the main application is not able to run. They are allowed to run in carefully managed circumstances, so that if the phone has several background tasks active the user will not notice the phone running more slowly. Background tasks are designed for use in particular scenarios including background music playback, file transfer, regular updates and occasional bulk data processing. Background tasks are invisible to the phone user, although a user can see them running and control which ones are active. A background task can alert the user to an event by sending a notification or by updating the display on a “Live Tile” on the screen. The user can then start the application to find out more.

 A resource intensive task is allowed to run for longer times (up to 10 minutes) when the phone is locked (i.e. the user is not doing anything with it), connected to a power source and has high quality network connectivity available

Examples

Tourappbuilder.com

The Tour Buddy App is a native iPhone or Android application that can be easily customized with your audio, graphics and content to showcase your City, Museum or Attraction.

App Features: • App works 100% offline (GPS map requires network connection) • Update App Content in real time • Customized Branding – include your graphics for the Icon and Splash images • GPS Map: allows user to see their location and get directions • Tour Map: Custom Image Map of your facility • Include Multiple Stop Lists for multi-languages, locations or other categories. • GPS Auto play – audio is automatically triggered by GPS points (ios7 only) • Search list by keyword and sort list by ‘nearby’ (ios7 only) • Multiple images per stop (ios7 only)

### Play Audio From any Screen

The playbar is visible on every screen so you can start, stop or pause the audio or ffw/rwd from anywhere.

### GPS and Custom Image Map

Navigate with an interactive GPS map with directions to the nearest stop or a custom image map for a campus or indoor area.

### Multiple Tours in One App

Include Tours for different areas using the GPS and/or custom image map for indoor areas.

### Slideshow

Turn on the ‘Slideshow’ feature to rotate images in full screen when audio plays.

### Geo-location Triggers

Automatically trigger audio at predetermined GPS points (IOS only)

### Native App Work s Offline

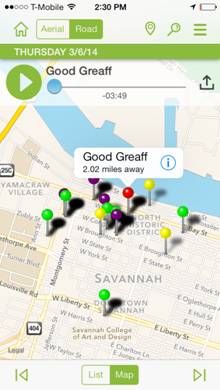
All app content is available without Wifi or cellular connection needed. And there is no delay when retrieving pages.

  
One per stop. Displays additional information and social sharing button for facebook, twitter, email, etc.

Html ready: phone numbers, addresses and websites are ‘clickable’

Include web links to You Tube videos, websites and more that will open in the browser inside the app.

ios version includes a small map if you scroll to the

  
Map shows GPS location of user and stops.

One click gives directions from current location to selected stop in Maps App.

Choose a street map or Google aerial map for parks and cemeteries

Optional: GPS audio triggers allow audio to automatically play when user passes a gps point

## About Audissey Guides

We love traveling. But we hate looking like tourists. So we invented Audissey Guides – hip, entertaining audio and video walking tours for your smartphone that launch travelers off the beaten path – and into the soul of a city.

**7. How long is it?**

The tour will take about 60 – 90 minutes, and covers about one mile. But you’re free to stop and start at your leisure. Go at your own pace!

**5. Where do I start the tour? How do I know where to go?**

There is a walking map to guide you along the tour route. If you download the Zip file of tour, the map will be a PDF in the zip file. If use the RSS feed or the “Add to iTunes” button, you will need to click on the gray triangle that appears next to the Tour title in your iTunes listing. You’ll see “Tour Map” appear. Then just click on “Get”, and the map will download to your iTunes account. Then just print out the map and take it with you!

Tips from Audissey

**1. Keep it real.** “Stick to what you know,” Rob says. “People know when you’re talking about stuff you don’t have a clue about. So talk about what you know and what you’re interested in.”  
 **2. Use your independence.** “Take advantage of the fact that this is an audio tour by taking people where they can’t go in a group. When you’re on an audio tour, you can go down tiny alleys that you can’t go down when you’re on a tour bus, or you can actually go eat inside a bar or a café. Use that.”  
 **3. Facts are good, but so is emotion.** “When I think ‘audio tours,’ I think of something that puts you to sleep. Very dignified, but totally boring. People want facts, but they also want personality and emotion.” Tips: make the delivery of the narrator less formal and more conversational and use background music that is influenced by the city or place you’re describing.

**4. Make it personal.** “We like to have a very, very strong first-person narrator. It not a voiceless, omniscient narrator, it’s Claudia Verela, the bartender and bikini model in Miami Beach. It’s Kevin Coval, the Jewish hip-hop poet in Chicago. The tour is almost like an extension of them – ‘this is my town, this is my neighborhood, that bartender is a friend of mine.’ It’s a very personal experience.”

**5. Get a decent mic and a quiet room.** “I’ve heard audio tours where you can hear people talking behind the narrator, lots of background noise. Not everyone has access to a professional sound studio, but at least find a good microphone and a quiet room to work from.”

**6. Ambient sounds are good.** “We always walk through once with a microphone recording the sounds of the city. A revolving door, for instance, has a distinct sound that is really cool. There’s something about walking down Hanover Street [in Boston] and hearing Italian men yelling at each other.”  
 **7. Music: Tough, but awesome.** “Music takes the listening experience to a whole new level, and it helps capture the flavor of a city. It’s unbelievable how each city tour has taken on its own personality – the music just feels like that city. The Miami tour is a lot of salsa and meringue, but also a lot of Reggaeton, club music. Seattle’s is way more chill – a lot of down-tempo beats, some electronic stuff, experimental stuff. That’s a departure from other audio tours with canned music or no music at all.”  
 **8. Keep things moving – short and sweet.** “People have a very short attention span, and anything over an hour is completely lost on people – their eyes begin to glaze over. So you’ll have to decide which stories to leave out of the tour. Our tours are also short from a distance perspective, rarely over a mile.”

**9. Surprise me.** “Give me something I never expected on this tour. In Boston, we take people to the former headquarters of the mafia. In Seattle, we incorporate public transportation by telling listeners to get on a bus and get off at the Seneca stop. We don’t tell them where Seneca is; they have to ask someone on the bus where Seneca is, forcing them to engage a local person. The things you don’t expect are the things you remember.”  
 **10. As a narrator, I am your friend.** “The narrator should be casual, funny, personal, un-touristy. Our philosophy is that our audio tour is the next-best-thing to knowing someone in the city. Narrator delivery should be like it would be to a friend: relaxed, occasionally irreverent, authentic.”

Walks