

ArcGIS for iPhone - An Introduction

Esri has extended the reach of its mobile product offerings to the Apple platform. ArcGIS for iPhone includes a ready to deploy application and API for developing custom applications. During this session you will be introduced to our ArcGIS for iPhone, how to create maps using arcgis.com that leverage the potential of the ready to deploy iPhone application and introduce the ArcGIS Runtime SDK for building custom iPhone applications.

<http://video.esri.com/watch/84/arcgis-for-iphone-an-introduction>

Video Transcription

00:01 I'm Jeff Shaner, and I'm the program manager for the mobile team in Redlands...

00:05 ...and with me presenting is David Cardella who's the product manager for the mobile team...

00:11 ...specifically on the iPhone and also the work we're doing in Android.

00:17 And also in the room, we have some members of the iOS team, so Mark Dostal, stand up, please.

00:23 Mark is the developer, lead developer of the application.

00:28 Nimesh, come on, stand up, buddy.

00:30 Nimesh is a product engineer on the iOS team, doing a lot of work on the API.

00:36 Who else we got in here?

00:39 Nobody else wants to stand up.

00:40 We have a receptionist at the front.

00:42 You can't see him when you came in.

00:44 He was sitting on his Mac.

00:45 That's Fred Aubry. He's our dev lead.

00:48 We actually put him to work doing something by, you know, hopefully saying "Hi."

00:51 Oh, here he comes, yeah.

00:53 He heard his name. Alright.

00:57 So what we're going to talk about today, we're going to do a little bit of overview and positioning of what mobile GIS is.

01:03 Have any of you in the room here built a mobile GIS system before?

01:08 [Inaudible audience question]

01:09 A couple of you, a few of you.

01:10 So I think this positioning and overview will be useful for you.

01:13 And then we'll go over what is ArcGIS for iOS.

01:18 The session title was iPhone.

01:20 It was done before universal applications came out and...

01:24 ...before Apple shifted their title or naming of iPhone and iPad and iPod touch applications to iOS.

01:35 So we're going to go over that, both the application and the AP, and then just kind of briefly go over what's next, where we're going.

01:45 So let's start with what is mobile GIS.

01:47 So I think you've probably seen this overall positioning of ArcGIS as a system a few times this week...

01:55 ...based on the sessions you've been to.

01:57 But it's a critical aspect of how we're talking about the system that is ArcGIS today...

02:04 ...and that's that ArcGIS enables you to visualize, create, collaborate...

02:09 ...do a lot of different core spatial operations with your information system.

02:15 And you can deliver that in a multitude of ways, either through local desktop systems, through enterprise systems...

02:22 ...or up in the cloud.

02:24 We're looking at lot of different deployments of our technology today.

02:28 And a really critical piece of that is mobile and lightweight GIS.

02:31 So we're expanding the reach of ArcGIS to a number of different lightweight GIS platforms.

02:38 And today we're going to talk about that latest offering that we have released, which is iOS.

02:48 So why would you use mobile GIS?

02:51 Well, there's a lot of different reasons for extending the reach of your GIS to the field.

02:56 You can use maps in the field to make better decisions.

03:00 You can view your asset information in real time.

03:05 You can route and navigate on top of maps.

03:08 You can maintain your operational data, improve its accuracy, improve its currency...

03:13 ...so that you can feed your operating picture more efficiently.

03:19 And you can synchronize data from the field, which is critical.

03:25 All of the mobile systems today are improving the way that you can synchronize and manage data through the web.

03:34 And the iOS is the perfect example of that.

03:39 So what are the considerations when thinking about mobile platforms or mobile GIS implementations?

03:46 Well, one is the platform.

03:48 The platform dictates in a lot of instances what you can and what you cannot deliver.

03:56 There are a number of platforms supported by Esri now.

03:59 We have, of course, the iOS platform.

04:03 We also have the Windows Mobile and Windows platform.

04:07 There's Linux through Engine.

04:09 There's BlackBerry through our business partner Freeance.

04:15 So there are a number of different platforms that you can choose from.

04:18 And it really is dependent in the platform space based upon what your enterprise is standardized on.

04:24 So, form factors is also an important consideration.

04:28 So, let me hold up the device.

04:32 An iPhone device is a nice form factor for your pocket and for working with thumbs.

04:39 But for a lot of field-workers, it's too small.

04:43 So they're looking at iPads.

04:46 They're looking at tablets.

04:47 They're looking at how they're mounted, whether they're mounted in vehicle, whether they're handheld.

04:53 That dictates a lot of what you're going to implement inside of a mobile GIS.

04:58 Also the capabilities of the device.

05:01 They need to be enabled so that you can install technology onto them.

05:05 That didn't...that's actually a pretty new phenomenon, if you think about it.

05:10 For example, here in the United States, Verizon locked down their phones for the longest time.

05:15 You couldn't install any kind of application on it.

05:17 But, the market's been driving the change and now we see these phones being open...

05:23 ...so that you can install any kind of application of them.

05:27 And connectivity. Connectivity is really critical in the consideration of your mobile GIS implementation.

05:33 So if you're thinking about connectivity, well, where are your field-workers going to be?

05:38 Are they going to be in areas where they're always connected?

05:41 Or are you going to get into dead spots?

05:43 If you're into dead spots, you need to think about how you implement your GIS system...

05:49 ...so that they can be productive in those dead spots.

05:54 So how do we position our technology so that you can take advantage of all those considerations?

06:00 Well, we really have three offerings today that we discuss as mobile GIS products.

06:07 One of those is called ArcGIS Mobile.

06:09 Has anyone here implemented an ArcGIS Mobile solution?

06:13 Nobody. One person. Alright. Two people.

06:18 So ArcGIS Mobile is still a fairly new technology.

06:21 We introduced that at the 9.2 release as an API.

06:25 There are sessions on it this week.

06:27 I think there's one on it later today.

06:31 I encourage you to go to that.

06:33 One of the big changes in that technology is that it's now also available with a desktop license.

06:38 It's not tied to advanced server alone.

06:42 So I encourage you to look at it if pricing was an issue for you before.

06:47 ArcGIS for iOS, which is what we're going to talk about today, is another product that we've just recently released.

06:55 And ArcPad, which is our flagship product that we've had for 10-plus years now.

07:00 And there's presentations on all of this technology here today.

07:05 David and some of the other products managers are going to present on the positioning of the overall technology for you.

07:12 When is the next session for that, David?

07:13 Today at one-thirty in this room.

07:15 Today at one-thirty right here.

07:16 And it's actually in the book.

07:19 It's in the book.

07:22 So let's talk about the iOS.

07:24 So what is ArcGIS for iOS?

07:28 First of all, it's an application.

07:30 How many of you have iPhones or iPads in the room?

07:35 Most of you. How many have downloaded the application?

07:38 Alright.

07:39 There's a back door for us.

07:43 So you're all aware that we've released this application.

07:46 I mean if you weren't here on Monday when Jack talked about it, then you know now.

07:51 But it's also an API.

07:53 So, is there anyone in the room that's looked at the API?

07:58 Couple. Three. Not many. Great.

08:01 Well, we're going to talk about the API as well.

08:04 It's available right now on the mobile resource center and you can download it.

08:09 It's in a beta format though, but we're going to talk about that schedule a bit as well.

08:15 So what is the application?

08:18 It's a free application.

08:19 It's available on the resource...it's available on the iTunes app store.

08:24 You can get to it from our resource center.

08:27 It'll link you right in to iTunes, so you can download it if you haven't gotten it directly from your device.

08:32 And really, it's a gateway to online ArcGIS.

08:36 So it directly works with our on-the-cloud system called ArcGIS Online or ArcGIS.com.

08:46 And you can make maps on that ArcGIS.com site.

08:49 You can share maps with others in groups and open them on you iOS device and hopefully a lot of people have done that already.

09:00 It also works with on-premises ArcGIS Server, which I know from a lot of the Tweets has been extremely confusing...

09:07 ...and we'll talk a bit about that as well today.

09:10 And then the API.

09:11 It's a native Objective C API that integrates into Xcode.

09:17 It's not using its own separate IDE.

09:20 And you can use it as a replacement to the iPhone map kit to leverage your own investment in ArcGIS.

09:32 So we'll get into those details.

09:34 Who's it for?

09:36 It's for everyone. We want it to be for everyone.

09:38 We want it for the application.

09:40 We want it to be for GIS professionals, for GIS executives.

09:46 We want it to be for consumers of our community mapping technology...

09:51 ...the cloud technology that we hope will have a community-led focus to it.

09:56 That's ArcGIS.com.

09:59 It's for GIS developers.

10:00 It's also for the iOS community.

10:01 Those of you here in the room that have done GIS development, it's for you.

10:06 It's for our business partners.

10:10 So we're hoping that, by virtue of the way that we've developed the API, that those who are not GIS developers...

10:18 ...but are iOS developers, because there's a huge community of that, as you all know...

10:24 ...that they take up our API and they start to realize the value of GIS and start implementing it in their systems.

10:34 And then just the general community as consumers of community mapping technology.

10:39 So some of the stats we've had on the app actually are pretty interesting.

10:44 I'll share that in a second.

10:45 The application, first of all, it was our first foray into the iOS space.

10:52 So it's our first release.

10:55 We introduced it as a universal application which means that it's available on the iPad, the iPhone, and the iPod touch...

11:03 ...and it doesn't expand itself like other iPhone-only applications or iPod-only applications.

11:12 It's naturally there for the device form factor.

11:16 That's part of developing for the universal app.

11:20 Like I mentioned, it works with maps that you either author in ArcGIS Online...

11:26 ...or maps that you author when you're on-premises content server.

11:30 And I'll get into that in a minute.

11:33 And of course like I mentioned already, it's available on the App Store, or free.

11:38 So how's it doing so far?

11:40 Well, we've had it released since Monday, July 5, at about what, 2 in the afternoon, something like that.

11:47 During that first week, we had 31,528 downloads.

11:53 You can see the chart on the right was actually from an iTunes Connect application...

11:58 ...that kind of shows the trend of downloads each day.

12:01 And we peaked at about 9,700 downloads on Saturday.

12:07 It was on Saturday that we got that, Saturday, the 10th.

12:11 It's pretty amazing.

12:12 We're shocked by that, to be honest.

12:14 On Saturday, it also made the number one free productivity app, number 12 on the featured new apps.

12:21 Current downloads as of this morning, 51,118 and from pulling the stats on it, on Saturday...

12:33 ...there were over 79 countries that had downloaded.

12:36 I haven't pulled those stats and massaged them into a chart since Saturday.

12:42 So those are the current stats we have which is really amazing.

12:46 I mean, it's truly amazing considering that it's our first release of it and a lot of people are unaware of what its capabilities are.

12:57 You know, it could be that people have installed it, checked it out, and uninstalled it right

away...

13:01 ...but we're pretty excited by those numbers.

13:06 [Audience question] You don't have any sense...

13:10 Well actually, yeah, that's a very good question.

13:12 The question was, you don't have any sense if that was just us or your user community or the general public.

13:18 I actually...I think that it was more the general public, to be honest.

13:23 I think if you look at the way the trends are, you know, the numbers of downloads are going down.

13:28 I think what happened was it started to get awareness around Friday that there was this new app...

13:35 ...because it started to peak in the number of free productivity apps.

13:39 It started to go up and up.

13:41 So the general public started to download it which gave it a lot of exposure.

13:46 But I don't think that...we can't get those number of who it was specifically.

13:52 But, yeah, but based on the feedback we're getting, it was pretty clear that most of them were general public.

13:58 It wasn't the GIS community.

14:01 So I think that we're going to see a trend like that with all of the apps that we release.

14:05 There'll be an initial peak, hopefully up into that 10,000 range and then it'll taper down.

14:12 And hopefully it gets to a steady download rate, but we're excited with 51,000 downloads and the exposure that it get us regardless.

14:22 Just yesterday, yesterday afternoon, the BAO app that was shown on the plenary was accepted...

14:31 ...and it's now available as a free download.

14:33 So if you weren't aware of that, you can go an download it right now from the App Store.

14:38 [Inaudible audience question]

14:39 Oh, yeah, don't use your...not right now.

14:42 [Inaudible audience question]

14:46 So what can the application do?

14:49 Well, honestly in this first release, not a lot.

14:54 You can display and navigate through your maps.

14:57 Those maps are authored in ArcGIS Online or, like I said, your on-premises server.

15:03 You can find addresses and places, so there's a search tab and at the top of it...

15:12 ...you can search for a place name or an address and it'll find that and position it on the map.

15:18 You can identify locations.

15:21 On the Map Tools toolbar, you can tap Identify Location, tap on the map...

15:26 ...it'll identify what's there.

15:28 It'll reverse geocode it.

15:30 And then if you get to the details of it, you'll find features that are identified from that location as well.

15:36 You can predefine queries when you author the maps, and you can present those queries in that Search tab.

15:44 And then you can measure distances and areas.

15:48 For those of you who are GIS professionals that have submitted your responses, yes, we do not warn you about web Mercator.

15:56 That's a consideration we're having right now.

16:00 So if you measure a distance, it could be...or an area, it could be very inaccurate if your map is based in web Mercator.

16:08 And you can find and share maps.

16:09 So if you find a really interesting map, you can mark it as a favorite map.

16:14 You can e-mail it to somebody, and if they have the application, they can just open it directly or...

16:21 ...if they don't have the application, there's also a link to go and find it and download it, so...

16:28 David's going to show a lot of that.

16:30 This slide is a slide that talks about how we move to maps and what maps are really inside of ArcGIS for iOS.

16:40 So there's been a lot of confusion I think about the details of what a map is as far as ArcGIS.com and ArcGIS Online goes...

16:51 ...and how they work with ArcGIS for iOS.

16:54 So a map is something that you author inside of ArcGIS Online.

17:03 It's a composition of map layers.

17:06 And those map layers are map services that you've published through ArcGIS Server or others have published or...

17:13 ...map services that are hosted through ArcGIS Online as basemap services like Bing Maps...

17:20 ...like OpenStreetMap, like our World Imagery Map, and others.

17:26 ArcGIS Online is your tool for authoring those maps.

17:30 Also on ArcGIS Online is the ArcGIS Explorer online application.

17:35 So there's two publishing applications right there on ArcGIS Online that you can use to author what we call a web map.

17:44 Has anyone heard of a web map before?

17:47 One person, so this is...this is important.

17:51 You're going to build a web map? Awesome.

17:53 So what a web map really is is that composition of those map services.

17:59 And it's a JSON file for the developers in the room, and it's what you need to build for your on-premises content server.

18:07 And then, once you...once you author that map inside of ArcGIS Online, you can share it.

18:12 You can share it in private groups or public groups.

18:16 Public being sharing with everyone.

18:18 And then through the iPhone or iPad, you can find those maps, search for them based upon the tags that you've entered...

18:28 ...and download them and open them on your device and discover the capabilities of it.

18:37 So that's...that's really it.

18:41 Are you going to talk about the on-premises?

18:43 Are you going to show any of the on-premises stuff?

18:45 [Inaudible comment]

18:46 I won't get into more of that detail.

18:48 [Inaudible audience question]

18:53 Alright, it's over to you, Dave. Show it off.

18:57 Okay. Great. You guys can hear me okay?

19:00 [Unintelligible] I think it's C. Yeah, There we go.

19:05 Okay. Great. Thanks, Jeff.

19:07 So who has iPads?

19:10 I know we talked about folks who have...that's not bad.

19:14 You don't count...

19:17 Mark, would you line up? You did. I know you did.

19:20 Okay, so here we've got an iPad.

19:22 We've got our...just happen to be on this page, our BAO application as well as our ArcGIS application.

19:29 This is the same application that's available in the App Store.

19:32 It's the same application that Bernie showed on the plenary stage when he accessed some web maps...

19:38 ...and so what we're going to do is we're going to access some web maps.

19:42 We're going to take a look at ArcGIS.com, the portal into our online GIS system.

19:48 And we going to see how ArcGIS.com relates to the application.

19:55 Are you hearing that, an echo?

19:57 [Inaudible comment]

19:58 Oh, alright.

20:01 [Inaudible comment]

20:02 Exactly. Okay.

20:03 So there are few ways in which we can find maps when we use the application.

20:07 We've got a Find Maps tab.

20:09 Immediately I am presented with a number of galleries, and these galleries contain maps.

20:16 You'll see down here at the bottom that I am logged in.

20:19 So I'm signed in with my Esri Global Account and when I sign in, I get two groups available to me.

20:27 And these two groups are on the top.

20:29 One is called My Groups which represents the groups that either I've created on ArcGIS.com...

20:36 ...or the groups that I've been invited to and I'm a member of..

20:40 Also is My Maps and My Maps contains just what it suggests, the maps that I have authored using one of the tools on ArcGIS.com.

20:49 All the other galleries are free.

20:52 When I say they're free, I mean they are available to you whether you sign in or not including My Favorites.

20:58 And you'll have the ability to add and remove maps from My Favorites.

21:02 By default, we've got a few basemaps in there.

21:11 And you can, again, remove these.

21:12 These aren't hardwired in in terms of being stuck and also add your own maps.

21:18 Okay. So one way in which we can find maps is we can go ahead and search.

21:24 But when we search on maps, obviously all the maps that match that criteria will come back.

21:29 Also the search string or query that you use is saved in your recent searches so you can use it again.

21:38 The other way is to navigate through groups.

21:41 So these just happen to be the groups that I belong to.

21:45 Actually, I think this morning I didn't belong to any...

21:47 ...but I wanted to seem popular so I just went and invited myself to a bunch of groups.

21:51 Oh, I'll invite you.

21:56 So we've got a number of groups here.

21:58 One is a UC 2010 group.

22:00 When I go into that group, I can see the maps that are contained in that group.

22:07 Before I show you that, I'd like to just come out a little bit and click on the More Details button of the group where we can get...

22:15 ...as it suggests, more details of the group.

22:18 So a summary of the description, any tags we have.

22:22 We can get a look at some of the members. We see that I'm a very lonely member.

22:27 I'm the only member of this group.

22:29 Maybe...maybe I'll invite everybody here and we can take a look at that.

22:33 So let's go into the gallery.

22:35 We see we've got a few maps here.

22:38 We've got UC Places to Go.

22:40 Again I can get the details of this map.

22:44 I can do a few things with this map like open it right from here.

22:47 I can add it to My Favorites.

22:49 I could also share it.

22:51 I'll show the sharing capability later.

22:53 But, I'm here all week, so I know I'm going to open this map every day, so I'll go ahead and add it to my favorites.

22:58 And let's open this map.

23:01 So we see here that we've got a map that shows our topographic basemap.

23:07 It's also got an operational layer of restaurants and cafés and places to go.

23:13 And we see here that we've got all the native navigation gestures that you are probably used to with other...

23:21 ...either other applications within iPhone, iPad, or other mapping applications.

23:29 Also authored with this map are a couple of predefined queries.

23:35 And in this case, these predefined queries search for cafés or, in this case, also restaurants and bars.

23:43 So we can search for a number of restaurants and bars.

23:48 I can go into the details of one of these items.

23:53 We've got a website that we can click on and check out the menu.

23:57 We've got a description.

23:59 This is actually Rupert's map, so Rupert is an employee of Esri who lives in San Diego, so he's compiled this data...

24:06 ...and he's giving you his recommendations and his review, if you will, of the restaurants.

24:15 We can also take a look at a full extent of all these restaurants...

24:20 ...but even more useful is the ability to navigate and selectively query the restaurants...

24:30 ...so we can get at the same data through the map as well.

24:35 One of the other features is, if we go back to the results of our query, if I want to find out where the Tin Fish is, for example...

24:43 ...I can click on the query.

24:45 I can click on the result itself and it takes me to that specific feature within the map.

24:50 And, of course, I can get at the...I can get at the data behind that particular restaurant as well.

25:00 Okay, so what else do we have?

25:02 Well, we've got...we've got some tools in our toolbar.

25:05 So we see here that when we click the toolbar button, we get a list of tools.

25:10 And you'll notice that these tools are presented differently on the iPad versus the iPhone.

25:15 And this goes back to a point that Jeff was talking about about universal applications.

25:20 So a universal application, again, installs on both devices, well, actually all three iOS devices...

25:27 ...iPod touch, iPad, and iPhone.

25:30 And the application recognizes the platform in which it's installed on...

25:35 ...and takes advantage of the specific UI components of that device.

25:40 In this case, we've got a popover menu.

25:43 In the case of the iPhone, that menu will take up the whole screen and it'll be a table view.

25:49 This is what we mean by universal applications.

25:53 So we've got the ability to measure distances, area, as well as identify specific locations as well. Okay.

26:01 So let's...

26:07 You're going to go back...you're going to your laptop?

26:09 Yeah. There we go. Okay.

26:12 So let's take a look at this map.

26:15 And before we do that and see how the components of the map relate to what we saw through the application...

26:22 ...I just want to take you through a very, very quick tour of ArcGIS.com.

26:26 Who's had a chance to navigate, fool around with ArcGIS.com at all?

26:31 Create an account? A few folks. Okay.

26:33 So this might be new to most of us unless you guys are shy and just not raising your hand.

26:38 But, at any rate, so we come into ArcGIS.com.

26:42 Immediately we have the ability to make a map and there are two, as Jeff mentioned, two authoring tools.

26:49 We've got a native JavaScript authoring tool.

26:52 And we've also got Explorer Online.

26:55 So Explorer Online is very similar to the native desktop application of Explorer except it runs within the browser and it uses Silverlight.

27:07 We can navigate the various galleries of maps, web applications, or mobile applications.

27:14 And you see here that we've got a gallery, the default gallery's featured maps.

27:18 Again, this is the same gallery that you access through the ArcGIS application on the iOS device.

27:25 We also have the ability to get at some of the other galleries that I've showed you.

27:29 We have the ability to get to them through this website - highest rated, most recent, most viewed, etc.

27:41 I also have the ability to check out all of the groups that I belong to.

27:49 So let's go to the UC 2010 group, and, again, much like the application.

27:54 I can drill in and I can get at the details or some of the maps that are in this group.

27:59 I can also open this map.

28:01 So I can choose to get at, well, I can choose to open it or get at the details.

28:05 So let's take a look at the details where I'm given some of the metadata of this map.

28:10 Again, very similar metadata that you can access through the application on the iOS device.

28:17 And I can also open this map in one of the authoring tools.

28:20 Now these maps, regardless of what authoring tool they are built with, can be opened with either...either authoring application.

28:32 Now you may notice that when you go and open a map...

28:35 ...the order in which these authoring tools or clients are listed might be different.

28:40 In this case, we've got Explorer Online listed first.

28:43 In other cases, we might have ArcGIS.com.

28:46 So that list is determined based on the authoring tool you originally used off of the map.

28:53 So in this case, it was Explorer Online.

28:54 So let's go ahead and take a look at this map.

29:03 And we'll take a look at the layer list.

29:08 So we've got a few layers here.

29:09 We've got again our topographic layer.

[29:11](#) We've got our points of interest which is our restaurants and cafés and whatnot.

[29:17](#) And then we've got a couple of queries that we've authored here.

[29:21](#) So if I just go into one of these queries and take a look at the properties...

[29:26](#) ...we can see what some of the properties were used to set up this query.

[29:31](#) So we just...this is a very simple query; type equals restaurant or bar.

[29:36](#) So in our attribute table, obviously these features are labeled...café, restaurant, or bar.

[29:41](#) So very, very simple.

[29:43](#) But you'll notice that this is the same query that becomes available to us in the application.

[29:49](#) And so these names of these queries are important, right?

[29:53](#) Because it's the same name that we see when we click the Search tab on the device itself.

[30:02](#) Okay. Did I miss something?

[30:07](#) [Inaudible comment]

[30:08](#) Oh, I'm not done yet.

[30:09](#) Oh, you're not.

[30:10](#) Oh, no. Are you kidding? Sit tight.

[30:16](#) Also is the area, my content area of ArcGIS.com.

[30:20](#) So this is the area where I see all of the content that I have authored.

[30:25](#) So we talked about the galleries, the public galleries.

[30:27](#) We talked about the groups, the groups that I belong to.

[30:30](#) Now we're going into my content.

[30:31](#) And we see that I've got my content categorized by directories here.

[30:38](#) So I've got some Bloomfield data, Ft Pierce data, etc.

[30:42](#) And I've also got some user conference data that I'm using for this session as well as for some other demonstrations.

[30:49](#) So I've got various items here.

[30:51](#) I can have map services.

[30:52](#) I can have web maps.

[30:54](#) And these map services that I've added are just links to external REST endpoints.

31:01 So it's data outside the DMZ.

31:03 All I've done is basically bookmarked it through ArcGIS.com.

31:07 And why have I done this?

31:08 Well, it makes authoring the map much easier because I can access these bookmarks or access my content.

31:18 Okay. Let's go ahead and author a new map and then we're going to consume it or use it on the iPad.

31:31 So by default, we are presented with the topographic basemap which is great.

31:39 It was used for the UC map.

31:42 I also have the ability to change that by going to the map center.

31:46 Now I can specify New.

31:48 And I've got various options with specifying a basemap.

31:52 I can specify an existing basemap that we provide you.

31:56 I can search for one.

31:58 If I have the REST endpoint of a specific URL, I can add that in.

32:03 But I can also get at basemaps through My Services.

32:06 And My Services, again, is that ability for me or the bookmark list.

32:11 I call it a bookmark list.

32:12 But basically I've added an item to ArcGIS.com that points to a REST endpoint and I've name it appropriately.

32:22 So I've got a basemap called Bloomfield basemap.

32:26 So I will display that basemap, and I'll just navigate so we can get a little bit more detail of the basemap, and that's great.

32:35 We'll go to the layer list.

32:38 So we've got our basemap set up.

32:40 I'd also like to add some more content, some operational layers.

32:45 And one of the operational layers I'd like to add are Bloomfield Parcels.

32:51 So we'll add Bloomfield Parcels.

32:53 I want that layer turned off by default because I'm just going to use that layer as a query layer right now.

33:03 And I'd like to add one more layer, Bloomfield Assessor Data, and by default that's going to be turned off.

33:14 Okay, so let's author a couple queries.

33:17 I can select the layer that I want to query from and, of course, create a query.

33:22 Now there's two types of queries that you can create.

33:26 Both of the queries, or both of the queries you saw in the first map, are queries that don't require any user interaction.

33:33 So these are queries where the value of the query string is already set up.

33:40 So in order to help me, I've got some predefined parcel IDs that I am going to put in here.

33:55 So again, this is going to be a query that doesn't require any user interaction.

34:00 Oh, check my syntax.

34:02 Left off the equal sign.

34:04 Did I leave off the equals? Thank you.

34:10 Funny thing about that.

34:15 When I save the query by default, the authoring tool automatically executes it.

34:19 So I know if I have a successful query right away.

34:23 Of course, I want to name this query, so let's call this Query Parcel ID, such that when a user uses this predefined query...

34:35 ...it's named appropriately and they know what's going to happen when they execute the query.

34:41 Let's create another query.

34:45 This will also be on parcel ID, but we want to allow the user to enter in their own parcel ID.

34:53 So a property assessor for a local government, their workflow right now is to drive around with a number of physical cards.

35:03 And these cards represent a property.

35:06 They have an ID and they have all this other data associated within...

35:09 ...to help the property assessor assess the value of the piece of land that they're looking at.

35:15 So what we want to do is, we want to set up a parameterized query in this case.

35:21 And we want to create a new one.

35:23 The field is still parcel ID.

35:25 Our operator, we want it to be equals again.

35:29 I have a predefined parcel ID that's a little different, and I'm going to put it into the default value.

35:39 So when this query is executed, the user is going to be presented with...

35:44 ...a little bit of a UI window that allows them to type in the parcel that they're looking for.

35:49 Well ,f they don't know what parcel exactly they're looking for, we have a default value in there.

35:53 So it certainly makes demoing much easier.

35:57 We want to make it also easy for the user to know what type of data they should be entering.

36:03 So we're going to give them a hint, if I can type this morning.

36:11 Great. We also have...

36:12 Give a hint?

36:14 Oh, sorry. A prompt. No, I don't want to give them the hint.

36:17 Hints actually, a hint is going to be used by some of the other clients.

36:22 So when you hover over the text input area box, a popup or a hint will appear.

36:29 Obviously we don't have that ability on the iOS devices.

36:31 So I'm going to leave the hint out.

36:33 But I do want a prompt which will be a bit of text or a direction to the user to enter in, in this case a parcel ID.

36:41 I can also use these two tabs to take a look at the existing data within the layer that I'm looking at...

36:46 ...and I could also have the ability to turn on and off certain fields.

36:50 So, object ID really isn't interesting to me right now, so we'll turn that off.

36:55 So I've set up this parameterized query.

36:57 Now I haven't added it to the expression yet...

36:59 ...and adding it to the expression is just simply clicking on the parameter that we just created.

37:06 That's very similar to this, so we're just going to change this to just Query Parcel, and I think we're good.

37:07 Now when we save this, the query gets executed, and here is the prompt that the user is given.

37:15 So we see we've got our information here, enter parcel ID.

37:19 We've got our default value, and we've got the ability to execute this and we see that we have a successful query.

37:29 So let's rename this.

37:45 So we're going to save this.

37:50 Let's call it Bloomfield Intro Session.

38:01 What's that?

38:02 That's very creative.

38:04 Thank you, well, you know, it's a skill. Okay.

38:09 And we'll save that.

38:10 How am I on time? Okay?

38:12 You just keep going. Everybody loves your demo.

38:14 Yep. They're right.

38:16 Calm, soothing voice. Everybody's had their coffee. They're awake.

38:19 Everybody go to sleep.

38:21 Okay. So we've saved this.

38:23 If we go back to ArcGIS.com and look in my content, we see that I have another item added here.

38:29 And it is called Bloomfield Intro Session.

38:33 I can go in and I can view some of the details.

38:37 And that's great.

38:38 But what does it mean exactly in terms of the iOS device?

38:43 Well, let's...Okay.

38:52 Let's go and try and find this map.

38:56 So instead of navigating for it which, actually maybe I'll just show you.

39:01 If I go into My Maps, I now see that I have the Bloomfield Intro Session.

39:07 I can also search for this as well.

39:14 And I see here that I've got Bloomfield Intro Session.

39:16 I can access the metadata just like any other maps that I've shown you.

39:21 I can add this to my Favorites or share it.

39:26 And of course I can always open it as well.

39:34 Well, let's take a look at these queries.

39:36 So I've got the ability to query by parcel which, again, will not prompt user for any information...

39:44 ...and we see that a parcel comes back.

39:46 I can get it...I can get at some of the detailed information there.

39:51 We see that we're not returning an object ID which is good.

39:54 Actually, I think on the other query I turned it off and not this one.

39:58 But we can also view this feature on the map.

40:03 We could take a look at it with relation to other parcel IDs.

40:05 We can get at the same features or the same attributes through the map view as well.

40:12 Let's clear this and let's query by parcel ID.

40:16 So we see here that we've got a prompt to the user.

40:20 The user to type in, in this case, parcel ID.

40:23 We've got our default value.

40:25 We can search on that.

40:27 We can take a look at where that is in the map.

40:30 So we can see here the value that a property assessor would have.

40:33 If they already have the number of parcel IDs that they need to assess for a particular day or a particular week...

40:40 ...they can use this application and even more importantly...

40:43 ...a properly authored map to help them get at current and historical data that's going to help them properly assess this property.

40:55 The other ability that they have available to them or the users of this application do...

40:59 ...is that they have the ability to get at not only the metadata of the app but some of the layers that were used to author.

41:05 So we see we have the parcel layer as well as this assessor data.

41:09 So by default, we authored that layer to be turned off.

41:13 Well now we can turn it on.

41:14 And this assessor data can contain other bits of information that can help the assessor...

41:19 ...recent foreclosures, recent requests to reevaluate a particular property or home on a property.

41:27 So we see here that we can also access or identify these features.

41:35 When we identify a point or given information about that location, not only x,y but in this case we've done some reverse geocoding.

41:43 Because the identify drills down through all the layers that I have, we see here that we have three results.

41:49 But I can get...oops...I can get at the attribute data of, in this case, it looked like it was a request to earn appeal for its taxable values.

42:01 So they wanted to get their property reassessed in the hopes of decreasing their property taxes.

42:09 Okay. So hopefully by now it's clear or clearer how ArcGIS.com authoring maps relates to the ArcGIS for iOS application.

42:24 Whether that's on the iPhone or the iPad or iPod touch.

42:30 There was one other thing I wanted to show, if that's okay.

42:33 [Inaudible comment]

42:34 Tick, tick, tick, tick. Alright.

42:36 Get moving.

42:37 Get moving.

42:39 We've received a lot of feedback.

42:42 We notice one gallery here is ArcGIS Server's.

42:46 So a lot of folks want to take their own data and bring it into the application.

42:50 Well I've shown you one way to do that.

42:52 So if you've got your data served out outside the DMZ, there's nothing stopping you from authoring a map with ArcGIS.com...

42:58 ...hosting that map at ArcGIS.com, and accessing your data.

43:02 But if you want to host your web map on your own server, you also have the ability to do that.

43:10 Now don't be misled.

43:11 This name...this gallery doesn't access REST endpoints directly.

43:16 The application access is web maps, and web maps are a mashup of data as well as queries and other functionality.

43:24 So what you can do is, when you install ArcGIS Server 10, you get a content server installed for you.

43:33 And that content server can be used to host your web map.

43:37 So you don't have to use ArcGIS.com at all.

43:39 You can host a web map, hit your own data, and then access that data through this gallery.

43:46 So we see here that I've already added a couple servers.

43:49 Dave Bowman, I don't know if he's here today, during the plenary, wasn't paying attention...

43:54 ...but what he did do was author a web map and host it on his own server.

44:00 And so once we give a path to where that web map is, we see the maps that Dave has posted on his server.

44:09 And I have the same ability to get at some of the metadata.

44:12 I'm actually also going to share this map.

44:16 I'm going to share this map with myself.

44:23 Talked about that sharing thing.

44:24 Yeah. That's the type of person I am. Right.

44:28 So I can e-mail this map.

44:31 I can also open this map...whoops...within the application. Let's go back.

44:39 So this is a map of fire...and we see here...just zoom in a little bit.

44:49 So again, this is all data, sorry, this is a web map that's hosted on an external server.

44:56 On Dave Bowman's server?

44:57 On Dave Bowman's machine. Yeah.

45:00 Shall we see if it came in the e-mail or am I over time?

45:03 Go ahead. We'll talk later.

45:07 Let me...let me make sure I don't have any personal e-mail. Okay.

45:12 So I got my Gmail account.

45:14 Hopefully it comes through...zoom in a little.

45:20 Okay. There we go.

45:21 So we've just received an e-mail.

45:23 I can open up this e-mail and if I don't have the application installed on this device, it prompts

me...

45:28 ...it gives me a link where I can go to the App Store and install it.

45:32 Now I already have the application installed.

45:34 Because the application is installed, it recognizes the URI of the link to that map.

45:40 And I can just click on the map within the e-mail and have the application automatically open up this map.

45:47 And so, great.

45:50 So we see that we've just shared the map.

45:52 It's on an external server, Dave Bowman's server.

45:56 And I have the same capabilities in the same functionality in the iPhone as I do in the iPad.

46:02 Now this map wasn't authored with any searches.

46:04 I got to talk to Dave about that.

46:05 Why didn't he do that?

46:07 He's probably doing it right now.

46:08 Yeah, he's probably doing it right now.

46:09 Anyways. Okay. Jeff back to you.

46:12 Thanks, David.

46:13 [Inaudible audience question]

46:15 I'm sorry.

46:16 [Inaudible audience question]

46:18 Oh, yeah. Sure.

46:21 So we've got a couple buttons along the bottom.

46:23 I've shown the Info button which gives you metadata about the map.

46:27 But the button beside it is to get at your current location.

46:31 And we can use that...

46:36 Tap on it.

46:38 Could also get...we can also tap on it as well. Thanks, Jeff. Yeah.

46:41 We'll get information about that as well.

46:44 So that's how we can get at our current location. Good question.

46:55 [Inaudible audience question]

47:08 Yeah, you would...the question is if your map service was password protected, would you be able to access it.

47:15 So if it was a secured service like a token security...absolutely, yeah.

47:19 So you'd get prompted for the credentials and you enter the credentials.

47:25 I wanted to make a a...I was making a few notes on David's demo there...

47:28 ...and I wanted to point out a couple of things as he was going through it that we want you to think about.

47:34 First is that with ArcGIS Online, it doesn't mean that you need to publish your map services up to our cloud infrastructure.

47:43 It may sound obvious but there's a lot of confusion around that.

47:46 People think that you need to make your map services publicly available.

47:52 The way to think about ArcGIS Online is it can simply be a content server.

47:56 It can serve up the web map, the JSON file that's pointing to your on-premises map services.

48:04 So those map services can be cached-based map services, can be dynamic map services, they can be 9.3 map services...

48:14 ...they can be 10 services.

48:16 What David showed with the connection to Dave Bowman's on-premises service requires ArcGIS 10.

48:23 So when you install ArcGIS 10, there's an entire REST endpoint that you can access on your .NET or Java server...

48:33 ...that gives you all of this information and you can upload your JSON file to that.

48:38 And there's a document on the ArcGIS for iOS resource center that talks about how you can publish it.

48:46 It lists out the format of the web map file, all of the pieces to it and gives examples of how to author it and how to connect.

48:55 So those of you that want to do that, that's there for you.

48:58 Another key aspect is that you don't need to use our basemaps.

49:03 Dave showed that, but it's...I want to underscore that...

49:06 ...because all of the basemaps that we are authoring in ArcGIS Online are web Mercator basemaps.

49:14 I mean they're rich basemaps.

49:15 They're great basemaps, but if you want to use your map services to be basemaps...

49:20 ...because they're your cartographic standard in your organization...

49:24 ...you can use them.

49:25 And they don't have to be published to ArcGIS Online.

49:27 You can use them through your corporate server.

49:33 And then the last point is that the way that you author your map documents before you publish them is really important.

49:41 Because if you do not take that time in defining the map layer properly, you'll see things like what David did.

49:50 He did not identify on a feature and he didn't set the primary display field on one of the map layers.

49:57 So it showed no value there.

50:00 You saw the row in his table that had no value.

50:03 So you need to spend that time in properly...it wasn't David's fault.

50:08 It was somebody else's layer, so he's looking at me like ooooooh.

50:10 [Inaudible comment]

50:12 Yeah, it was at Dick's, yeah.

50:15 But it's really important.

50:16 So take that time to properly author your map services because it really impacts all the ways that they're shown.

50:23 So just some key points, but, you know, I give you five stars.

50:26 [Inaudible audience question]

50:33 That's great feedback.

50:34 We'll make sure that that's available.

50:37 It may be there today in the ArcGIS Server documentation.

50:41 But what we'll make sure we do is point to that through our resource center so that we can do that for you.

50:51 Okay. Just writing that down.

50:56 Let's shift gears a bit and talk about the API, and David's going to show some of the API as well.

51:03 So the ArcGIS API is, like I mentioned from the start, a native Objective C API.

51:11 So there is a package, if you go to the resource center, you can download it today.

51:18 It will place the APIs in a specific folder that also provides a set of templates where you can go and open up Xcode...

51:28 ...and just start developing your own application and there's some steps that walk you through the process.

51:34 And on the resource center, you'll find conceptual documentation topics and reference help.

51:41 The reference help that we've developed also embeds directly into the Xcode IDE...

51:47 ...so you can get reference help directly within the IDE.

51:53 And you can use the iOS API to build your own focus mapping applications.

51:59 Like I mentioned, it can be a replacement for the Google-based map kit that's there.

52:06 If you just simply want to make viewing applications that are mapcentric that are using your GIS content...

52:13 ...and not the Google maps, that was actually one of the key drivers for us.

52:19 It's your authoritative content that's being displayed, not someone else's.

52:25 And you can embed maps in GIS or spatial technology into your existing applications.

52:30 And we've got some examples of early adopters that have been building applications to do that very thing.

52:39 So, yeah, who's using it?

52:41 So when we started to develop it, you know, even before that, people were asking...

52:45 ...when are you going to starting building for the iPhone?

52:48 Lots of early adopters came along including people within Esri.

52:52 So you see that today with our Business Analyst application that's on the App Store now.

52:59 A company called Smartsoft, NASA, City of Philadelphia, ESRI Singapore, Israel...there's a host of them...AccuWeather...

53:08 ...that are building applications today.

53:13 Smartsoft...Smartsoft is actually in development right now integrating our map kit with SAP...

53:21 ...to provide an integrated experience, and they're looking to go to the App Store later this summer, early this fall.

53:30 NASA, in their lunar mapping project, are putting together an iPhone, iPad application

53:37 ...that lets you discover all of the wonderful data that they've been building.

53:42 And they've been working with us for a few months on that, no.

53:47 City of Philadelphia is building a crowdsourcing application.

53:51 Oh, I forgot to remove that demo bit there.

53:54 Oh, David's going to show the Philly 311 application at the Mobile SIG, which is...

54:01 ...I've got a slide on that at the end of the presentation which is at noon today, and there's free food for that so...

54:08 Right, Jen?

54:11 But that application allows the citizens of Philadelphia to submit requests.

54:18 Has anyone heard of a 311 application before?

54:21 A few of you.

54:22 So David will showcase that at noon.

54:26 I won't get into a lot of details, but it's actually doing data collection on the device. So...

54:35 ESRI Singapore. ESRI Singapore is in development of a consumer-focused application of where to go in Singapore.

54:44 It's a really exciting-looking application that they're hoping to go to the App Store with pretty soon, too.

54:53 So what do you get with the ArcGIS API?

54:56 I talked a bit about this already.

54:57 You can get a package that you can download to your Mac.

55:00 You have to be using a Mac running Snow Leopard to develop with the API.

55:09 You get, as a download inside of that package, reference help, samples.

55:15 You get the APIs themselves and you can start building your own application.

55:24 An important point about that I guess is that for the iOS developer, you know that first slide I had about the API...

55:31 ...we made sure that we integrated it into Xcode such that for them it's just a natural progression.

55:38 Now they've got this developer toolkit that they could just quick get up and developing with.

55:45 For some of you in the room that have been ArcObjects developers in the past, there's a bit more of a bar there with Objective C...

55:54 ...but Dave's going to show some of that in a demo so he'll go through some of those topics, especially from...

56:02 ...I'm just putting you on the spot here...thinking about...some things to think about if you're coming from that world.

56:07 [Inaudible audience comment]

56:08 Don't go...but really the capabilities.

56:11 If you're familiar with...how many people have built a web application with, say, JavaScript or Flex?

56:16 A few of you.

56:17 So the capabilities that you'll see in the API match those capabilities.

56:23 Our goal is to make it a natural development to building mobile applications as it is to building web applications.

56:30 Because, to be honest, a lot of people who have developed web applications want to mobile enable them.

56:37 They want to take their web applications and make them accessible on everybody's extension of the web...

56:43 ...which is an iOS device or an Android device.

56:47 So we want that experience to be really seamless and easy for people as well.

56:52 So you'll find three key concepts, maps which support different sets of map layers, multiple map projections...

57:03 ...dynamic and tiled cache maps, web services are supported, so is Bing, so is OpenStreetMap.

57:10 You can sketch maps on top of the...or graphics on top of the map, create pop-ups, all that kind of jazzy stuff...

57:17 ...that you expect out of an API like the web API.

57:22 And then there's a set of tasks.

57:23 There's query tasks, identify and find tasks, just like you've used in the web APIs.

57:29 There's one that accesses the feature services at 10 so you can do data collection with attachments.

57:37 You can locate and geocode geometry operations, geoprocessing operations, everything except the kitchen sink.

57:48 So what's the developer experience for using the API?

57:52 Well, first you need to identify your agreement with Apple.

58:00 You could download the...you could just create an Apple ID and go and download Xcode.

58:07 And you get the iPhone developer kit, so the IDE and the API for iPhone or iOS development

is free for download.

58:19 You can download that then grab our package off the resource center, start to develop your application...

58:25 ...then you determine how you want to deliver that.

58:28 You can deliver it up through the App Store or you could deliver it through an enterprise account.

58:34 We'll talk about that in a little bit.

58:37 And then you can...there's different ways that you can do the deployment of those applications you develop...

58:42 ...to the devices you want to target.

58:45 We all know what it's like to do that deployment if you're going on to the App Store, right?

58:50 You can download it directly from your device.

58:51 You can go from iTunes and download.

58:54 But there's other options available.

58:57 So let's take a look at that.

58:59 So the deployment can be through the App Store.

59:01 If you're targeting consumers, if you're targeting citizens within your local government, if you're targeting the mass public...

59:09 ...you're going to want to go through Apple's App Store, because that gives you exposure.

59:13 It gives you...just like we've seen, it gives you brand recognition and I guarantee that if you get apps up there...

59:22 ...you'll get the kind of downloads that we're getting, right?

59:24 I mean, when people are just, as all of you are, these new apps come out in the App Store, you got to download it and check it out.

59:31 So if you build a compelling application, they will come.

59:36 So you could deploy it through the App Store or you can do an internal enterprise deployment which...

59:42 ...I'm not sure how many people realize, but you don't have to go through Apple's App Store.

59:46 If you're going to deploy within your own enterprise organization, you can purchase a specific licensing agreement with Apple...

59:54 ...and do even over-the-air deployment of applications within your organization.

59:58 You don't have to go up through Apple's App Store.

1:00:02 You don't have to make it a paid app and give them a bunch of money.

1:00:07 You can manage those applications in different ways.

1:00:09 So if you go up through Apple's App Store, there's a developer portal that you can use to do the submission.

1:00:15 There's an application portal that you can use to monitor the downloads, your updates, all of that great stuff.

1:00:23 And there's an iTunes Connect application for enterprise deployment as well.

1:00:29 And there's now through iOS 4 a whole host of ways that you can do mobile device management.

1:00:36 So you can actually remote wipe and control mobile devices that are out in the field.

1:00:43 You can monitor their battery life, what applications are on it.

1:00:47 It's effectively like a BlackBerry solution where you've got your own BlackBerry server installed.

1:00:54 That's now possible through iOS.

1:00:58 [Inaudible audience comment]

1:00:59 I did use the B word.

1:01:03 So I'm going to go back over to Dave and he's going to show this.

1:01:07 [Inaudible comment]

1:01:09 ...forgetting, I can't either. Okay. Thanks Jeff.

1:01:14 Before I show you a really quick demo using one of our template APIs, I wanted to show you our resource center...

1:01:22 ...for two reasons.

1:01:23 So to get at the resource center, please go to resources.arcgis.com.

1:01:32 Under products we've got our mobile subresource center or overall resource center.

1:01:37 We've got ArcGIS for iOS.

1:01:40 There you can access information about the application or the API.

1:01:45 So the first reason why I am bringing you or showing you this site is because on the application...

1:01:52 ...there is a document that describes how to set up and configure and access web maps that you've hosted on your own servers.

1:02:01 So the last demo that we did with accessing Dave Bowman's web map can be...

1:02:09 ...you guys, you guys can do it here with this detailed documentation.

1:02:11 Can I say one thing on this?

1:02:13 Absolutely.

1:02:14 And you were maybe going to go there.

1:02:15 The...the Gallery link actually goes to ArcGIS.com.

1:02:20 So an interesting thing there is if you are going to build your own code samples on the iOS platform and we're going to build them...

1:02:29 ...if you want to also showcase your applications, can you click on Gallery real quick?

1:02:34 Sure.

1:02:35 No, no. You were...okay.

1:02:37 Oh, Gallery within here.

1:02:38 Gallery right there.

1:02:40 That goes to ArcGIS.com and you can showcase applications that you've built there.

1:02:44 It'll give you, I guess you could think of it like our app store, in a sense.

1:02:49 That's a way for you to get recognition of your apps.

1:02:51 So Philly 311 is up there already, but people can get details of your application.

1:02:56 You can upload there either as a code sample or just as a link back to your application, your website.

1:03:03 But you can't download.

1:03:04 So when we say it's like our app store, it's not a distribution mechanism. Okay?

1:03:09 Apple controls that, just so you know.

1:03:12 [Inaudible audience question]

1:03:15 Ah...

1:03:16 Yes.

1:03:18 It depends. It depends...

1:03:20 Click on the details of one.

1:03:24 You should be able to get at the...

1:03:27 So here's a URL that Philly has provided.

1:03:29 So you could redirect to your website and then you sign in using your ArcGIS.com account...

1:03:39 ...in order to upload your application there.

1:03:43 So it's tied to your e-cast or your Esri Global Account.

1:03:47 So customers who have uploaded, we encourage them to provide a URL and any contact information...

1:03:54 ...and it's in their best interest to do so if they want to generate some excitement about their application.

1:04:00 The other portion of our resource center is for the API itself. Jeff had mentioned this.

1:04:05 And we can download the API from here.

1:04:08 Again, it's a public beta.

1:04:09 Anyone can go ahead and download it.

1:04:11 It's all done through the resource center.

1:04:15 Okay. I wanted to take just a couple minutes to show you a very quick application, then we can take some questions.

1:04:20 So here I have Xcode open and it immediately prompts me to bring up some of my previous projects.

1:04:27 I'm not going to do that.

1:04:28 I'm going to create a new project.

1:04:30 When we create a new project, we have the templates that come with the iPhone or iPad SDK.

1:04:38 But we've also...once you install our API, we have our own templates.

1:04:43 And these templates are generally based off of the most popular types of iPhone and iPad applications that are getting created.

1:04:51 The tab bar application which is what our application takes after, navigation based as well as view based.

1:04:58 Now the difference between our templates and iPhone's templates or Apple's templates is that we provide the build settings for you.

1:05:07 So if you don't use one of our templates to create an application, you'll have to go into the individual build settings...

1:05:14 ...linker files, search library headers, and give the path specifically to where our API gets installed to.

1:05:23 So these templates give you a head start on that, and it takes away some of the...some of

the complexity.

1:05:29 So we can specify a name, Session Intro.

1:05:37 We'll save that.

1:05:38 So immediately, just like other IDEs, Xcode creates some classes for us.

1:05:43 It creates a delegate class which is responsible for the startup and shutdown and some general memory management for us.

1:05:50 And it contains a view controller with both a header and an implementation file.

1:05:55 So rather than have you guys watch me fat finger this application, I'm going to cheat.

1:06:01 I've got a constant here that points to our topo data.

1:06:07 So this is the REST endpoint of our topo data.

1:06:11 I also want to initialize or at least declare an AGS map view object.

1:06:18 AGS map view object is an object from our API and it does as it suggests.

1:06:23 It is the visual map of your application.

1:06:27 I also want to set it up as a property.

1:06:31 And this property is special because it's an outlet property.

1:06:35 This outlet allows me to connect this object to a visual component.

1:06:41 In other words, what visual user interface in my development environment is this map going to be displayed on?

1:06:48 In this case, it's going to be a UI view.

1:06:51 And a UI view is a visual component that is given to us by the iPhone SDK.

1:06:58 Okay. So we've set up our header file.

1:07:01 Let's synthesize this object.

1:07:04 Synthesizing this object just gives me my getters and setters.

1:07:09 Because I am specifically creating this map view, I want to deallocate, in this case setting it to nil.

1:07:18 And then the meat of this very, very complicated application is when we bring up the topo layer.

1:07:26 Now when is a good time for us to display this data?

1:07:30 Well, the template gives us a viewDidLoad method, and if we uncomment it, it puts some of our business logic in there...

1:07:39 ...when the application starts up, we'll see, hopefully, our data.

1:07:43 So very quickly, I'm not going to go through too much...

1:07:47 You've got the next session on this.

1:07:49 ...detail on this because the next session is the API.

1:07:51 But basically we're instantiating an instance of a tiled service layer and we're adding it to our map view object...

1:07:56 ...that we declared in our header file. Okay.

1:07:59 Now because we explicitly created this tiled layer, we then need to release it. Okay.

1:08:07 That's not all we need to do.

1:08:10 We also need to go into one of the NIB files.

1:08:14 These NIB files are basically a WYSIWYG way for us to design our user interface.

1:08:21 And it opens up another IDE that you get with the iPhone SDK and the IDE is called Interface Builder.

1:08:29 So I'm going to go into my library of components, visual components here.

1:08:33 I'm going to grab a view.

1:08:35 I'm going to make it the full size of the screen.

1:08:38 If I go over to my document inspector, I see now that I have a view within a view.

1:08:42 But the view that I just added is a special kind of view, right?

1:08:45 It's going to display our map, and so in order for me to tell my application that this is AGSMapView...

1:08:54 ...I need to change its class or its type to AGSMapView.

1:08:58 We're almost done.

1:09:00 So when the application loads, we need to tell the map to draw itself in that view.

1:09:09 So remember when I had that property declaration and I said this is a special property, it's an IB outlet.

1:09:15 The IB outlet gives me the ability to access this object name, in this case map view, from Interface Builder...

1:09:23 ...and I can say the data that the map view object has should be displayed in this new map view that I've created.

1:09:32 So that's great. We'll save that and we'll come back to Xcode and we'll go ahead and we'll compile and build this...

1:09:38 ...and hopefully, with any luck, and there we go.

1:09:41 So we have...we really, I mean it doesn't do much.

1:09:44 But we really have a fully functional application.

1:09:47 And so, what do you get with the map view?

1:09:48 Well, you get all of the native panning and zooming.

1:09:51 You've got the pinch.

1:09:54 You've got the double tap to zoom out, double tap to zoom in, or single tap, single double tap to zoom in...

1:10:00 Congratulations, you've just built your first application.

1:10:01 ...and you get all that with the...with the map control.

1:10:07 Thanks, Dave.

1:10:11 [Inaudible audience comment]

1:10:12 Yeah, 995.

1:10:14 Well we could have put no data in there.

1:10:15 And called them flashlight so...

1:10:18 I think you're mike just went off.

1:10:22 They're cutting us.

1:10:24 So I think I had, was it, yeah, I just had a couple of last ending slides.

1:10:30 With the API, there are some considerations about licensing of course.

1:10:34 If you're going to deploy within your own enterprise, you can define your Apple agreement through them.

1:10:39 Well, you have to define your deployment agreement through them, either as an enterprise deployment which is what...

1:10:46 In the US, it's \$299?

1:10:48 \$299.

1:10:49 \$299 with unlimited deployments.

1:10:52 Unlimited deployments within your organization.

1:10:55 Can you hear him?

1:10:56 Unlimited deployments within your organization.

1:10:57 Unlimited deployments within your organization for 299 bucks.

1:11:02 Through the App Store, you can either, it's a standard agreement that's \$99 and you can make it a free app...

1:11:11 ...or you can make it a paid app or in app purchase where they're going to get a chunk of revenue, 30 percent I believe.

1:11:21 And then you want Dave's business card because as we're still in development, the API is free for development purposes...

1:11:29 ...just like you have today with the web API, but we're still trying to determine the deployment fee pricing.

1:11:36 So that's...that's in process and Dave will be able to give you updates on that.

1:11:45 So what's next?

1:11:47 This was our first release of the application and as you can see, it's not the first release yet of our API.

1:11:58 We're moving quickly though.

1:12:00 We're going to move in increments of two to three months.

1:12:04 You'll see this development happening not only in the iPhone and iOS but also through a lot of our APIs and applications...

1:12:12 ...like ArcGIS Mobile as well.

1:12:14 We're going to move rapidly in development of new features and as incremental downloads from the resource centers.

1:12:21 So coming next is collection.

1:12:23 I've seen a lot of people asking through Twitter, through the remarks we get back in the App Store...

1:12:30 ...that the application doesn't do much.

1:12:33 Well, it's our first start.

1:12:35 We needed to get an application out before the User Conference.

1:12:38 And it's actually a pretty compelling application when you look at it, and we've been getting great feedback.

1:12:43 But people want to collect on it.

1:12:46 So that's coming. That's coming soon.

1:12:49 We're going to make a bunch of incremental improvements to the user interface, and we'll eventually get to supporting offline use...

1:12:55 ...which was another key question.

1:12:58 I'm not going to give you dates on any of those.

1:13:00 I'm just going to say that we're doing fast, incremental updates to them.

1:13:04 And you're going to see those increments coming in the application.

1:13:09 With the API, we need to move pretty quickly on that...

1:13:12 ...because we have a number of early adopters that want get up to the App Store.

1:13:15 So you'll see a release of that happening still this summer.

1:13:20 We're shooting for sometime in August?

1:13:23 Yeah.

1:13:24 Looks like I have a meeting.

1:13:29 And as we make increments to the application, the API either follows shortly after or it'll be synchronized with it. So...

1:13:42 There's a number of additional tech workshops that we want you to check out while you're here.

1:13:46 There's a next session right after this where Dave's going to focus on developing apps for the API.

1:13:53 I encourage you to come to that because it's the only offering of it.

1:13:57 And it wasn't in the book, but stay if you want to see it.

1:14:02 We have another offering of this session tomorrow.

1:14:05 There is a special interest group meeting today at 12 till 1 in room 31C.

1:14:15 So please come to that.

1:14:18 We'll have some giveaways.

1:14:21 We have lunch.

1:14:22 We'll be talking about all of the technology in the mobile space that we're building and where we're going.

1:14:29 So please come to that.

1:14:31 And also come to the island.

1:14:33 So the ArcGIS Island, the Mobile Island, you can come there.

1:14:38 We have some iPads. We have some Macs.

1:14:40 You can get in-depth discussion with our developers.

[1:14:44](#) With ArcGIS Mobile, you can go out and try it.

[1:14:48](#) So from 2 till 4 today and Thursday at 11, you can go out in the marina with one of our development staff and use the application.

[1:15:02](#) And then come back in and see the results of your work on a Flex viewer that we have hosted up there.

[1:15:09](#) So we encourage you to do that.

[1:15:10](#) And there's also a number of ArcPad sessions that are going on.

[1:15:14](#) So if you're an ArcPad user, we encourage you to go to those, too, and there's an interest group for that, too.

[1:15:23](#) So that's it. Thank you.

[1:15:24](#) Fill out those forms.

[1:15:25](#) If you have any questions, we can take them now or you can come up, because we're out of time, so please come up.