Getting Information into and out of the Field

ArcGIS 10 makes it easier to sync, update, and deploy your maps, data, and analysis directly on mobile devices. Learn how you can use the mobile capabilities of ArcGIS 10 to increase collaboration among users and non-users of GIS software.

http://video.esri.com/watch/136/getting-information-into-and-out-of-the-field

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Video Transcription

00:01 The second element that's really exploding is about mobility and getting information into the field.

00:07 And what has caused that and we'll do a review of that and some of the applications or solutions that we are providing...

00:13 ...to allow you to deliver these products out in the field.

00:21 By being available to have differentmobile services out in the field...

00:27 ...you're exposing the work that you've been doing for years.

00:30 The maps and the services and having the ability to publish those results and make those available to lightweight devices...

00:38 ...like the iPad or the iPhone.

00:44 Soon we'll be doing some Android but also other types of devices - high precision GPS tools.

00:51 Everybody wants to have access to that information and then you can then enable those people going out into the field...

00:58 ...with those mobile devices to become sensors, to gather information as well and bring that back in the system.

01:04 So they're not just using your maps.

01:08 They're providing you information back into the system.

01:12 It can be based upon the type, these applications can be based upon the type of client that you want to deliver it to...

01:19 ...and we'll now look at the three that we are offering.

01:23 I alluded to the iPad, and how many of you guys have an iPhone or iPad?

01:30 Only a few.

01:31 Ah, the luck...actually this is pretty, an exciting area.

01:34 And I actually have my iPad here and I can show that to you guys over lunch about how ArcGIS.com...

01:43 ...we have an application for that.

01:44 We built an ArcGIS for iOS app that allows people to deliver fast and lightweight map services.

01:51 By making this available, this is to the consumer, the people that need access to your maps and services quickly and easily.

01:59 And actually make it fun to use.

02:02 It's changing how people are doing work and doing information gathering.

02:07 They want to be able to see a map.

02:08 They want to do a route.

02:10 These types of areas work very well for this type of solution, so we're developing and exposing the ArcGIS for iOS app for the iPhone and iPad.

02:19 As Jack alluded to earlier, we're looking at deploying that to the Android-related devices.

02:25 I was here a couple weeks ago.

02:27 We had some people working on the Windows 7 phone and some of the solutions that can be ported there.

02:34 Let's take a quick video of the iPad for those who haven't seen it and the ArcGIS for iOS app.

02:45 ArcGIS for iOS is a great way for you to extend your enterprise GIS to a much wider audience.

02:53 Let's take a look.

02:55 From the application, we can instantly discover maps and content that we can view.

03:00 Let's take a look at the featured content as an example.

03:03 Here we see maps and applications that have been shared with the ArcGIS Online community.

03:10 Let's take a look at one of those maps.

03:11 This is U.S. topo maps.

03:14 Here we can zoom in and we can see the Grand Canyon.

03:18 I can also discover content from groups.

03:22 So I'm a member of a group and let's take a look at information that's been shared for me in that group.

03:29 Take a look at this capital improvement projects.

03:36 So from here, I can access this map that my peers have created.

03:40 I can open up the tools and actually identify features.

03:44 So here we can see this location, and I can discover the attributes and the information behind this work order.

03:54 We can also measure and identify features in this map.

04:00 So in this case, I will cancel our identify and let's measure a distance on this map, like this proposed park trail.

04:08 And I do so just by drawing a line with my finger.

04:13 So there we can see the distance in feet or I can convert to any unit I like.

04:19 I can also use predefined queries or searches.

04:22 So let's search.

04:24 These were defined for me ahead of time.

04:27 I can search by project type like road resurfacing.

04:34 Click, and go right to that location on the map.

04:36 I can even view information about this particular work order type right by touching it.

04:42 So I would encourage all of you to download the ArcGIS for iOS application from the Apple App Store.

04:48 You can run this like I am on my iPad.

04:50 You can put it on your iPhone or your iPod touch.

04:53 Thank you.

04:56 Right.

04:58 So you got a little taste of that, and as I said, I brought mine so if you want to play around with it at lunch...

05:04 ...we can go to ArcGIS Online and bring that app in.

05:08 And actually what I like to do is type in my search as DFG, Department of Fish and Game...

05:12 ...and I can bring in some imagery services that they've published up there and bring that into my service.

05:18 It's really, really powerful, really fast.

05:21 The second thing and fun to do is just taking that identity or, excuse me, the Measure tool...

05:26 ...bring in Pasadena and go to the Rose Bowl and actually, well, how good are these measuring tools?

05:31 Well, just go measure the football field.

05:33 It should be a hundred yards, right?

05:35 And that tool's right there and available for you to use.

05:38 So we're making our tools and the information accessible to people now on these types of devices...

05:44 ...and it's pretty exciting because it takes advantage of the latest resources.

05:51 The second element is looking at, if I'm working with my clients...

05:56 ...and my workers need to go out in the field and do focus-based GIS collection.

06:02 This is where ArcGIS Mobile comes into play.

06:06 It's when you have that field-worker that maybe is going out to a levee and doing a levee inspection...

06:12 ...they don't understand GIS a lot but they have a work order form, for example...

06:17 ...and be able to take a picture of that levee and the conditions and report it back to the geodatabase.

06:25 ArcGIS Mobile is that type of tool to be built and then deployed out to your workers...

06:32 ...so it can sync to the geodatabase at the desktop or sync up to the ArcGIS Server as well in real time if needed.

06:42 So let's go ahead and do a demonstration on what we saw earlier this morning on the ArcGIS Mobile Resource Center

06:49 ...on how Jen created the project for the parks application.

06:56 OK, thanks Tony.

06:57 So what I'm going to do is just take a few minutes and show you how can use the new ArcGIS Mobile project center...

07:03 ...to build that application that you saw me demonstrate this morning in the first demonstration that I did.

07:09 So when you open up the Mobile Project Center, you have a list of all of your recent projects.

07:13 So I only have one here and that's the one that I showed you this morning, but you may have many.

07:18 I'm going to create a new mobile project, and the first thing that I do is I'm going to add content.

07:24 There are two different types of content I want to add to this application.

07:28 I want to add a basemap and I also want to add just a service for editing.

07:33 So I'll go ahead and connect to my ArcGIS Server and I'm going to first add that parks district

service that's been mobile enabled.

07:41 So if you look at it, you'll notice that some of the features that you saw me do earlier this morning.

07:46 So you're looking at the same data that we saw.

07:49 And then I want to also provide a basemap for this application so that my field crews can look at it, take a look at the area.

07:59 And the one that I've chosen is the imagery hybrid service and I'll go ahead and add that to the application.

08:05 So now I've got my services, all of my data that I want to use.

08:08 I have my operational layer which contains or is pointing to the service that has all my parks assets...

08:17 ...and then I have my hybrid basemap that I'm using for the point of reference.

08:21 So now I've got my content that I want to enable my field crew workers with.

08:25 The next thing that I want to do is I want to give them some tasks or some workflows that they can do out in the field.

08:32 The first thing that I want them to do is to be able to collect features.

08:35 So I'm just going to change the title here and say, Collect parks assets.

08:42 Another capability that I want them to have inside the application is the search capability.

08:47 So I'm not going to change anything here.

08:49 This is so that they can look for specific features while they're out in the field and they can search the GIS database.

08:55 The last thing that I want to alter is how the edits are going to be managed in the field.

09:00 So as I'm out there collecting data and information, how do I want those edits to be posted?

09:06 And I'm going to change this to When Connected.

09:09 Because I can work in a connected or a disconnected environment.

09:13 When I am connected, I want to automatically post those edits and those changes that I've made back to the geodatabase...

09:19 ...so that other users of the system can have that information readily available.

09:24 So I've configured the application.

09:26 So I've done this all out of the box.

09:28 The next thing that I need to do is just to save it.

09:31 I'm going to give it a project title and call it Parks Assets.

09:36 And these are tags that people can search on, so I'll just give it one.

09:40 You can give it a description, so I'll just say Collects parks assets.

09:48 If I click here, I can get a thumbnail so that anybody that's searching...

09:51 ...or looking at this particular project can get a view of what the map looks like.

09:57 And then the last thing I'm going to do is save it out to my location here.

10:00 So I'm going to call it Parks Assets.

10:03 So notice that you see the application that I demoed earlier this morning there.

10:09 And I'll go ahead and click okay.

10:10 So now what it's done is it's created a new mobile project for me...

10:15 ...and now I can take that project and I can deploy it to my mobile workforce.

10:20 I'll just go ahead and open it up so you can see that it's the same project that I worked with this morning.

10:28 So there's our map showing our basemap and our operational layers.

10:32 If I look down here at the tasks, I've got Collect parks assets.

10:36 It's using the same service that you saw earlier so I have the same symbology and I can begin doing my work.

10:42 And so you'll see couple of the other features that I added there...

10:45 ...the search capability and then the by default for the manage edits, it's going to automatically post when I'm connected.

10:52 So this is how you can use the Mobile Project Center to build a mobile application fairly quickly...

10:58 ...and get your field crews out there collecting and updating information.

11:03 Great. Thank you.

11:06 So we saw the Mobile Project Center.

11:08 With ArcGIS Mobile, that's part of when you have one license with each of those desktop licenses that you have.

11:14 So you have the ability right now to go ahead and begin to leverage that.

11:18 Those that have enterprise advanced server have already now access unlimited to the ArcGIS Mobile solution.

11:27 So take a look at this...oh, we get...hey.

11:32 So that was a new enhancement at the 10 release by the way.

11:36 So take a look at this.

11:37 This is a way of how can I begin to be more focus based, task oriented for improving my field-workers going out in the field...

11:45 ...collecting information and getting back into the system.

11:50 So we have discussed two of the solutions for mobile.

11:56 The third one is what many of you are familiar with and that's ArcPad.

12:00 ArcPad is for you, the GIS professional, that's going out in the field and is doing ad hoc field data gathering and analysis...

12:11 ...and also has the requirement for different types of high-precision data gathering...

12:14 ...using it and integrating it in with Trimble type devices.

12:18 So as you can see, we've got a series of solutions for you to begin to create mobile solutions...

12:24 ...based upon the clients that you want to reach out to.

12:28 So we have that consumer light and fun type application that it does some simple edits...

12:34 ...and allows you to publish maps through the iOS available now in iPad and, as we described...

12:40 ...in other operating systems coming in the near future.

12:44 ArcGIS Mobile for those task-based solutions and finally ArcPad.

12:48 So we can sit down with you all and review what it is you're trying to do and what's the best place for you to begin exploring...

12:55 ...deploying out your maps and your services out into the field.

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