

Working with ArcMap - Tips and Tricks

ArcMap gives you the power to better answer questions, examine relationships in your data, and create cartographic outputs. Become more productive in your daily workflows by learning more efficient ways of performing your regular tasks. This presentation and demonstrations will offer tips and tricks for working with ArcMap.

<http://video.esri.com/watch/88/working-with-arcmap-tips-and-tricks>

Video Transcription

00:01 All right. So we have a lot to cover over the next little bit, so let's kind of talk about our brief overview...

00:06 ...some of the objectives that we'll be covering as part of this presentation.

00:09 What we want to do is we want to cover some of the key workflows that you'll be working with in ArcMap.

00:15 So, one of the most important things, of course, is to be able to make a map.

00:18 So, we'll talk about different ways that we can work with layer properties, being able to work with layout pages...

00:24 ...some different principles on working with data frames and map documents.

00:27 So we'll discuss a lot of those different principles.

00:30 We'll talk about how to make a map for your print output.

00:34 But we also want to also focus some time on how to be able to make your maps interactive.

00:38 So perhaps you want to build a kiosk operation or application, or maybe you want to publish your map on the Web.

00:45 We'll give you some advice on how to be able to make your map documents more efficient for those interactive type of applications.

00:52 Another important aspect is, of course, editing.

00:54 Being able to take some features that you have, some feature classes, and make some modifications to it.

00:59 So, Danielle is going to show you some cool things you can do within an edit session.

01:03 As well as presenting some results.

01:06 So maybe you have some analysis that you perform.

01:08 You want to be able to display those results.

01:10 We have some neat ways to be able to produce those results through ArcMap.

01:17 Now, just out of curiosity, as we're looking over the crowd here, how many people consider themselves beginner ArcMap users?

01:25 All right, very good.

01:26 How many are, consider themselves more intermediate, they've used it for a little while?

01:31 Okay, we see a pretty good show of hands there.

01:33 Who are experts?

01:36 Oh look, you guys are brave, that's good.

01:38 All right.

01:39 So, we just want to kind of mention up front that primarily we're going to focus for the beginner audience...

01:45 ...but at the same time if you are an intermediate or expert user, you will get some little tidbits of information along the way...

01:51 ...so you may get some additional information that you might not already have.

01:55 But we do want to focus this presentation primarily for those who are fairly new to the product and are fairly new to ArcMap.

02:03 All right, second question for you guys.

02:05 Right now, in your workplace, how many people have 9.3.1 on their machines, or 9.3?

02:10 All right. Pretty substantial number of hands.

02:12 Who has ArcGIS 10 already installed?

02:15 Okay, so we've got a few smattering of hands.

02:17 All right, that's perfect, because our goal in this presentation is to make sure that when you guys go back to work on Monday...

02:24 ...you are going to be productive with ArcMap right up front.

02:27 So, we're going to primarily focus a lot of the demos that we'll show today on 9.3.1.

02:32 Now, we'll also show you, as we get a transition, some also, some different aspects of working with ArcGIS 10...

02:39 ...so kind of whet your appetite to get you in the mood for maybe moving on to the next version later on.

02:46 But, as we go through the presentation, most of the things that we'll do in 9.3.1 will also be applicable for 10.

02:52 So, all the little tips and tricks that we'll do as part of our demos, we can do exactly the same thing with the 10 software as well.

02:58 So, we want to make sure that, even if you are a 10 user, you are still going to get something from this presentation.

03:05 Okay, so why don't we go ahead and get started with just a really quick slide, giving us some context on what ArcMap is.

03:12 All of you have used ArcMap before, is that a safe assumption?

03:15 Has anyone not used ArcMap, just out of curiosity?

03:18 Okay, so all of us had the opportunity to open up the application? That's cool.

03:22 So we know what it does.

03:23 We know that it is the main application that we use in ArcGIS Desktop to allow us to be able to make some content for our maps.

03:30 So you can think of it as an authoring type of application, where we could go ahead and add in some layers.

03:35 Make the layers look and behave the way we want them to look.

03:39 We'll be able to perform things like analysis, be able to do queries.

03:43 Also be able to perform things like editing, be able to make modifications to your data.

03:48 And we also have different ways to be able to present results in ArcMap, whether it's a map...

03:52 ...whether we want to create some kind of output image, or maybe you want to create some kind of graph or a report.

04:00 So, we do have a way to sort of centralize a lot of the different ArcMap properties.

04:06 Through the Tools menu there is an Options dialog that you can access...

04:10 ...where you'll be able to change a lot of the global settings that are a part of ArcMap.

04:15 And of course you can go ahead and modify some of these settings as you are being able to customize ArcMap for yourself.

04:22 There are a couple of examples that we see here on the slide.

04:24 We're going to go through those examples as part of this demonstration.

04:27 So you'll see that coming up in a second.

04:31 So, as part of our first workflow, let's go ahead and start talking about how to be able to work with your map, for print output.

04:40 And what we're going to do is, also as one of our missions of this presentation...

04:43 ...is to sort of minimize the number of PowerPoint slides we're going to show.

04:47 We're actually going to demo a lot more.

04:49 So as part of the demo that I'm going to be doing here in a couple of seconds...

04:52 ...I'm going to focus primarily on working with individual layers, so we can go ahead and access layer properties...

04:58 ...be able to group layers, be able to save layer properties as layer files, and also work with things called layer packages.

05:05 So we'll kind of describe what those are.

05:08 We'll also talk about how to be able to navigate through the layout page...

05:10 ...why you would want to be able to create multiple data frames...

05:13 ...and how to be able to add individual map elements to that page.

05:19 I also want to focus a bit on some different types of output.

05:22 So if you want to be able to create an image...

05:24 ...or if you want to be able to, perhaps, produce a PDF file of your final map...

05:29 ...we'll show you how to be able to set that up.

05:32 And finally, we want to do a quick mention on something called map templates.

05:36 Map templates are a great way for you to be able to get a head start on your map...

05:40 ...be able to use some cartographic principles and best practices...

05:43 ...just plug in your data to be able to make some pretty cool looking maps.

05:49 Let's go ahead and start this demonstration.

05:51 I'm going to go ahead and move over here to our computer.

05:58 Okay. Thank you.

06:01 All right.

06:08 Okay, so the first thing that we're going to show here is that we have a map document called Yosemite.mxd.

06:13 And we have some basic Yosemite data that we're displaying here within this single data frame.

06:18 And we have some additional information that we could display here.

06:21 So for example, one of our nonvisible layers at this point is fire history.

06:26 We can go ahead and turn on that layer and be able to see some footprints of some fires that

have occurred in the past.

06:33 And we also have a layout section, and this layout section is going to be important for us.

06:38 So, our scenario is that we have this point where someone has gone missing...

06:44 ...and we want to begin a search-and-rescue operation to be able to find this person.

06:49 So as we kind of zoom in towards that red point, we'll be able to see the location of the last person seen.

06:56 We have a number of climbing points that we see here that we can use as landmarks.

07:01 And we also have a grid, so each of these grids are one mile by one mile...

07:06 ...and we're going to use these grids to help begin to plot out some maps to begin the searching process for this missing person.

07:15 Now, what I'm going to first do, is I'm going to go ahead and zoom to full extent so you can see the entire map.

07:24 Hmmmm.

07:25 That's a little bit interesting.

07:27 What happens when you normally click on Zoom To Full Extent?

07:32 [Audience question] Everything's displayed.

07:33 Yeah, you would be able to see all of the layers in your map.

07:36 That didn't quite occur in this case, right?

07:38 If we kind of zoom out a little bit more, we'll still see that we have a bunch of extra data that's on display.

07:45 So if this is our first tip and trick, if you want to be able to modify the extent of your full extent, you can certainly do that.

07:53 So if you right-click on the data frame and go to properties, and you can access the Data Frame tab that we see over here.

08:04 Here we have an option on the bottom to allow us to be able to set the extent used by the Full Extent command.

08:12 By default, it's going to go ahead and choose all layers, but in this case, we can go ahead and specify specific extent.

08:19 Here is where we hard-coded a bounding box, minimum x and y values, to be able to determine that full extent.

08:26 So anytime we click on the Full Extent button, it will take us to Yosemite Park.

08:32 So, that's kind of a neat little thing you can do.

08:36 Now I'm going to add in a new data frame.

08:38 A data frame, by definition, is just a container of layers.

08:43 So I'll go ahead and insert a new data frame, and I'm going to rename this data frame SAR for Search and Rescue.

08:53 Now currently this data frame is empty, so I want to be able to add in some data into this data frame.

08:58 And normally you could go into the Add Data button, find some kind of feature class in a geodatabase...

09:04 ...or maybe some shapefile that's out there, and be able to add it in as a layer in our data frame...

09:13 ...as a layer in our data frame. There we go!

09:17 So let's go ahead and access a dataset that we have here.

09:21 So we're going to go into this folder that I've got and I have that shapefile of that point last seen.

09:30 That big red dot that we saw earlier?

09:32 Let me go ahead and click Add on this.

09:36 Now when you add data from a feature class directly using the Add Data button...

09:41 ...you will notice that the symbology assigned to that point is assigned randomly, okay?

09:45 So we don't really know what it looks like at this point, although we can basically change what it looks like.

09:51 We can simply left-click on the little symbol, to bring up the symbol selector...

09:56 ...and here's where we can go ahead and make that big red dot.

09:59 So I'll go ahead and choose circle 2, I'll change the color to red...

10:03 ...and we'll go ahead and click OK, to be able to match the symbology of that red dot.

10:10 Let's go ahead and turn on the layer, as well, so we can actually see it.

10:13 There it is, that's useful. Okay.

10:16 By the way, normally when you add in data from the Add Data button, the visibility would normally be defaulted as on...

10:23 ...but you'll notice in our case the layer was turned off when I added it.

10:27 That's another little trick.

10:30 Sometimes you might have a lot of data that might take a long time to draw.

10:33 So, if you go to the Tools menu and go down to Options, these are one of those global settings that you can change.

10:40 So if I click down here towards the General tab, there's an option here for the Add Data button...

10:47 ...and you'll notice here there's a possibility for a check box to make newly added layers visible by default.

10:54 So I just happened to turn it off, so therefore when we added in that particular shapefile you'll notice that the visibility was turned off.

11:00 So, that's an easy toggle you can switch on and off.

11:04 Another thing you can set on Add Data is Return to Last Used Location, so if you want to be able to access some data...

11:11 ...and remember that location for the next time you open up Add Data, you can certainly add that option.

11:17 Or if you want to start at the same location over and over again, you might want to check that option off.

11:23 Also, kind of a neat thing you can change down here, is the ability to work with your mouse wheel and the continuous pan/zoom tool.

11:30 So sometimes you might want to be able to use your mouse roller to be able to zoom in and zoom out.

11:35 If you want to be able to reverse what is zoom in and what is zoom out on that mouse wheel, you can certainly do that.

11:40 Maybe to be able to match other software packages.

11:43 And then, what do you want to zoom in or out towards, the display or the cursor?

11:46 So you have a choice there, as well.

11:52 All right. Now, the next thing I want to do is I want to add in some more layers into this SAR data frame.

12:00 In this case, I want to be able to also add in those climbing points.

12:03 And I really like the symbology of this climbing point.

12:06 So I want to be able to reuse this symbology again.

12:09 So, instead of adding it in using the Add Data button and just going to the feature class of the climbing points...

12:18 ...I'm going to do something a little bit different. I'm going to save this as a layer file.

12:22 Layer files allow you to be able to save the contents of a layer, along with all of its current properties, as an .lyr file.

12:31 So I'm going to go ahead and save this here in C drive, go to my folder where all of my data is located...

12:37 ...and I'm going to save this as climbingpoints.lyr.

12:43 Now when I go to the Add Data button, instead of pointing to the feature class of that source data...

12:49 ...I'm going to point directly to the layer file, that layer file that I just saved.

12:53 And when I add that in to my new data frame, you'll see that the symbology...

12:57 ...or the layer properties, of that layer will also be a part of that layer file that I've added in.

13:02 So that's a great time saver.

13:03 If you want to reuse those layer properties over and over again in different map documents, you want to save those as layer files.

13:12 Now, another alternative is to be able to save that as a layer package.

13:19 So the difference between a layer file and a layer package is that a layer file saves as .lyr file...

13:24 ...and it saves references to the data source, but they're not really tied together.

13:30 Okay? They're independent.

13:32 When I create a layer package, it will basically tie the two together into this mini package.

13:39 So I'll go ahead and create this package called Climbing Points.

13:45 We'll go to the same data location.

13:54 And it will give us some notification that it has created this layer package for us, this .lpk file.

14:02 Then, when I'm playing around in my Windows Explorer, I'll go to that data folder, and I'll find that .lpk file.

14:11 I could distribute this .lpk file to anybody that I want.

14:14 They could double-click on that layer package, and be able to extract the contents of it...

14:18 ...so then you'll be able to access both the layer file and the source data together in that layer package.

14:23 So that's a great way to be able to distribute properties of your layer, as well as the layer itself, the source data.

14:31 So layer packages are always a good idea to keep in mind as you're sharing data for, with others.

14:40 Now just for time's sake, I'm going to go ahead and add in some other layer files that I've already created.

14:45 So I created a layer file for background, for hydro, for roads, and for trails, and I'm going to add that into my data frame.

14:54 And let's go ahead and zoom to full extent.

14:57 In this case for my regular data frame it will show all of my data.

15:00 We'll go ahead and zoom back in towards Yellowstone.

15:07 Now, one of the things you can do within the data frame is be able to organize your layers into something called a group layer.

15:13 And we see a couple of examples of that.

15:15 We see a group layer called Hydro, we see a group layer here called Background.

15:19 These group layers allow you to be able to store layers within the layer, to be able to organize things a little bit better.

15:26 So I can certainly do that, as well, for my roads and my trails, layers that I've just added in.

15:32 I'm going to right-click on the data frame and add in a new group layer.

15:39 And I'm going to name this new group layer Transportation.

15:45 I'm going to drag it down to the same level as it was with the roads and the trails...

15:51 ...but here's where I can go ahead and take that Roads layer in the TOC and drag it inside that group layer.

15:59 Same for the trails. I'll go ahead and do the same thing, drag that Trails into that group layer.

16:04 So the benefit of this is that I can, I always turn on and off the visibility of roads and trails individually...

16:11 ...but I could also turn the visibility of the entire group layer on and off, as well.

16:16 So, a great way to be able to organize your data through these groups layers.

16:22 What other goodies can we show you here?

16:25 Let's go back into the Tools menu and go to Options.

16:29 Under the Data View tab, we have some ways to be able to modify how you work with the Data View...

16:35 ...in terms of resizing the application window.

16:38 So if I were to resize ArcMap, for whatever reason, do I want to be able to have the same scale for my data...

16:44 ...or do I want to be able to zoom in, or out, based on the size of the window?

16:48 So that's something that you can certainly change.

16:51 Another thing you can change is the coordinate display in the status bar.

16:55 So you can currently see the coordinates that are being displayed down on the lower right-hand corner.

17:00 Okay. And it's usually in some units that are a little bit hard to read, lots of digits in these numbers.

17:05 So you might want to incorporate things like, thousand separators.

17:09 Maybe you want to reduce the number of decimal places.

17:12 And then when you apply that you'll be able to see the changes reflected here in the coordinate system...

17:20 ...so a little bit easier to read as you're navigating through and taking a look at those coordinates.

17:27 Another thing we can do here under the Layout View is to be able to incorporate things like snapping elements to grids and rulers and margins.

17:35 So you can go ahead and turn on and off those different options to be able to make navigating around your layout page a little bit easier.

17:46 All right. Let's go back here to our point, our red dot.

17:51 And yes, a red dot's an effective way to be able to symbolize this point, but maybe we want to be able to symbolize it a different way.

17:59 So I want to access the Properties dialog for this particular layer.

18:04 And as you may or may not know, the Properties dialog is this huge dialog with a number of different tabs...

18:10 ...to allow you to change some different properties of this layer.

18:14 One of the things that we always advise is the ability to turn on and off layers based on a scale range.

18:20 So, maybe I want to be able to turn this layer off when I zoom in to 1 to 10,000.

18:29 So, just with that simple modification, you can see it once we are outside of that threshold, but once we cross that threshold...

18:36 ...as you can see the scale here at 1 to 15,000, we'll zoom in one more time, and then we'll see that the point disappears.

18:43 So being able to turn on and off layers based on scale ranges is an important way...

18:47 ...to be able to make more effective maps, and also cleaner maps as they display.

18:54 Let's go ahead and zoom back out here.

18:59 Now, another tab that is of use to us is the Fields tab.

19:04 The Fields tab allows us to be able to turn on and off the display of fields, so maybe if I'm looking at an attribute table...

19:11 ...I don't necessarily want my users to look at the FID fields or the shape field; those aren't too important to us.

19:17 And then we can go ahead and show those attributes that are important to us, such as the Name field.

19:22 So we can certainly turn on and off the visibility of fields.

19:26 And we can also perform something like a MapTip.

19:32 So you can see here we have Show MapTips that will use the primary display field.

19:36 If you notice the primary display field is currently named, as we saw here in the Fields tab.

19:41 So we'll go ahead and just add that little check box.

19:43 So as we hover our mouse over that feature we'll be able to see that MapTip.

19:51 All right, let's do one more thing here.

19:54 Let's go back to Properties and let's go to Symbology.

19:58 Right now you can see that the symbol is this single red dot.

20:02 And yeah, we can go into the Symbol Selector, we can change that red dot to something a little bit more different.

20:07 So we give you a number of default marker symbols that you can use to symbolize this point.

20:12 And some of these might be of use to you.

20:15 But the reality is, you can also bring in a whole bunch of other types of points.

20:19 So if you click on the Properties button down here...

20:24 ...you can see that based on a number of different fonts that we provide, true type fonts...

20:28 ...there are a number of characters that you can use for that point, as well.

20:33 You can also see here on the left-hand side that we actually, this red dot is a composite of two layers.

20:38 So we have that red dot on the bottom, and we have an outline circle on top.

20:42 You can aggregate a number of these different layers together to create a complex symbol.

20:49 Now, another neat way to be able to add to the number of symbols that you can choose from is to work with the Style Gallery.

20:58 So let's go here to the Tools menus and go to Styles, Style Manager.

21:05 You'll notice here that we have a default style called esri.style.

21:11 And here is all the default symbols that we work with in ArcMap.

21:15 So for example if I go down to the Marker Symbols, here's all those marker symbols that we saw earlier.

21:22 Now this is just one style that we provide to you.

21:25 We actually provide a number of styles that you can go ahead and access.

21:29 So just by clicking on that Styles drop-down, we can go ahead and add in many more symbols based on some kind of category.

21:36 Maybe some vertical market that we have out there.

21:39 So maybe I'll choose Conservation.

21:43 You can see under the conservation style there is a number of different markers that have been added, as part of this particular style.

21:54 Now that we've added in that style, I can go back to our Symbol Selector, and because that style has been added...

22:02 ...all of those symbols from that new style have also been added to our Symbol Selector.

22:06 So I can go ahead and choose one of these symbols for display of our last point seen.

22:12 So I'll just go ahead and pick one just for randomness.

22:15 Just go ahead and pick GIS 1. There it is. Okay?

22:20 So using the Style Manager will allow you to access hundreds and thousands of different symbols...

22:26 ...that you can access through all those different styles that we provide to you.

22:32 Okay. Now, let's go ahead and access the layout page.

22:37 To access the layout page, this is the place where you'll be able to work with your actual printout...

22:42 ...you could either switch between Data or Layout View here in the view menu...

22:46 ...or we've got those little microscopic buttons right down here to allow you to be able to work with the same thing.

22:53 Okay, so there's that little toggle that allows you to switch between Data View and Layout View.

22:58 So let's go ahead and switch to Layout View.

23:03 It adds the Layout tool bar by default whenever you switch.

23:08 And here is our beginning of our map that we're going to be building.

23:14 Now, I get this question...oh, oops, sorry.

23:17 I get this question all the time whenever I teach classes, and that is, why do we have multiple data frames in a map document?

23:23 Well, it really comes down to your layout.

23:26 Every data frame that you have in your map document should be represented as a map in your page layout.

23:32 So here is that first map, that's our map that we looked at earlier.

23:35 And then this is that SAR data frame that we just added in from our demo.

23:41 So I'm going to go ahead and use this SAR data frame as our main map, and then use that other as our overview map.

23:49 Now, just like with any graphics program...

23:51 ...you have the ability to move different graphics on the page on top or on the bottom of the page.

23:57 So I'm going to take this data frame that we were just looking at...

24:00 ...and I'm going to order it to the back so that we can see the overview map on the front.

24:08 Now, this is an important thing to remember when you are working in Layout View.

24:12 The Pan and Zoom tools that we're familiar with in Data View, they still work in Layout View.

24:18 So I can go ahead and use the Zoom In tool and zoom in to my map.

24:22 Be able to pan around and go to different locations on my data frame in the layout page.

24:28 That's a good thing potentially, but it's also a dangerous thing.

24:31 Sometimes you want to line things up and you want to see certain things...

24:34 ...but if you accidentally pan and zoom around, you'll lose that location.

24:40 So when you want to work with the page itself...

24:42 ...that's when you want to take advantage of the Zoom In and Zoom Out tools of the Layout toolbar.

24:47 So here's where we can go ahead to zoom in to the actual page components to be able to see what you're looking for.

24:55 Good, we'll go, go to the full page as well.

24:57 So just keep that in mind as you're navigating to the layout page, between what's available in the Layout toolbar and the regular navigation tools.

25:07 All right, let's go ahead and add in some different map elements.

25:10 So in the Insert menu is where you can add in different things to your layout page.

25:14 So I guess every good map should have a north arrow.

25:17 We'll go ahead and add in that north arrow.

25:19 We provide a number of north arrows that you can choose from, so we've got a lot of different styles.

25:24 So let's choose kind of a traditional one here.

25:28 And once you add in that element, you can go ahead and drag that element...

25:31 ...resize that element, move that element to any part of that layout page.

25:38 Now the nice thing about these map elements is that they are tied to the data frame that has been added, that has been added to.

25:45 So you'll notice that when I added in that north arrow, this SAR data frame was active.

25:52 Okay, and so we want to make sure that if we're adding in an element, we're adding it in to the active data frame.

25:58 Which you can simply just click on the data frame to make it active.

26:02 That's important, because the element that you associate with that particular element will always be associated with the map itself.

26:10 So, to illustrate that, if I access the data frame's Tools toolbar and rotate the data frame, it will also rotate the north arrow.

26:22 So there's always going to be that live link between the two.

26:26 So, just keep that in mind as you're working with that.

26:30 Also, if I were to right-click on the data frame and go to Properties, I could also fix the scale of my map.

26:38 So if I know I'm going to be making a 1 to 20,000 map, I can fix that scale to the scale that I want my map to be in.

26:47 It doesn't allow me, notice the navigation tools all gray out except for Pan, because it doesn't allow me to zoom in and zoom out.

26:53 The scale is always going to be fixed at 1 to 20,000 on my map.

26:58 And if I were to insert the scale text based on this format, you notice that the scale text will also be 1 to 20,000.

27:11 So anytime you want to make sure that your map is going to be a certain scale you might want to fix that scale level on the data frame.

27:21 All right, just a couple more things.

27:23 Once you've finished up your perfect layout, you want to be able to export that content.

27:28 So one of the things you can do is you can choose an image format to be able to export your map in.

27:33 So for example if you want to be able to save this as a JPEG and publish this on the Web...

27:38 ...maybe you want to save it as a bitmap and bring it into Adobe Photoshop and make some adjustments to it.

27:43 You have a number of different options of images that you can export your map as.

27:48 You also have the option to save it as a PDF file.

27:53 So a PDF file allows you to be able to, of course, save it in something that can be read in Adobe Acrobat Reader.

27:59 And on the Advanced tab, you also have the ability to incorporate or export layered data.

28:05 So do you want to export the layers of that PDF file, or PDF layers and feature attributes?

28:11 So you do have a lot of flexibility on how you want to be able to export this document.

28:17 We'll go ahead and click Save, and it'll take that layout page that we're looking at and it'll create a PDF file for us.

28:32 All right, one final thing before I move on to the next topic, is the idea of data templates.

28:39 Or sorry, map templates.

28:42 So map templates are something that have been recently introduced by Esri...

28:45 ...to allow you to be able to incorporate some cartographic-quality maps right out of the box.

28:49 We give you all the components that you need to be able to make some pretty maps.

28:54 And you can access this through the Resource Center.

28:57 So our favorite Web page now is resources.arcgis.com.

29:02 We can go ahead and access the Mapping section of this page.

29:08 And from here you'll be able to see a link for our, the Map Templates Gallery.

29:13 So this is the place where you can download a package of map documents, of some data, of some documentation...

29:21 ...of perhaps some fonts and some styles, all packaged together for you to be able to utilize.

29:27 So if we go inside the gallery we'll be able to see different examples of this.

29:38 All right. So one of the things that might be useful for us is this Community Trails Map Template...

29:45 ...because it kind of looks like Yosemite Park.

29:48 So I've already gone ahead and downloaded that particular map template.

29:55 And here we can see inside what is included as part of that map template ZIP file.

30:00 So we got a getting started document, we have a map document, we've got a geodatabase...

30:07 ...and we've got a bunch of fonts that have been provided for us.

30:11 And if we take a look inside that map document really quick, we'll be able to see the contents of what it looks like...

30:19 ...based on some of the best practices that our cartographers have incorporated as part of this map template.

30:26 It's working, right?

30:32 I'm going to cancel this. Oops. It's fine. You didn't see that.

30:41 All right, maybe this isn't going to display.

30:45 Anyway. Pardon me? Yeah, the map doc.

30:51 Oh well.

30:52 So in that case, yeah, that's all right.

30:55 It's not a big deal, it's going to look a lot like this, and the idea is...

30:59 ...is that you could incorporate your data into the sample geodatabase to make your maps look very similar.

31:07 Oh, yeah, I want to show you one more thing and then I'll hand it off to Danielle.

31:14 Yes.

31:15 So, when you save your work, when you go ahead and file and save your map document...

31:21 ...normally all of the data references that you save are going to be hard-coded based on the path of that data.

31:27 So if I have a whole bunch of data sitting in a folder called C:\data...

31:31 ...that C:\data is going to be recorded as part of that map document.

31:36 So that makes it a little bit more difficult if you move your data to different locations or you rename something...

31:40 ...then you'll get those broken links with the little red exclamation points all the time.

31:43 You've seen that before, right?

31:45 Kind of annoying.

31:47 So one bit of advice is to go down to Document Properties from the File menu and choose Data Source Options.

31:55 And instead of saving the full path names to your data source of the map document...

31:59 ...maybe you want to store relative path names to your data sources.

32:04 So here's where you'll be a little more bit more strategic.

32:06 You'll create a map document.

32:07 In that folder you'll create a subfolder, and in that subfolder you could put all of your data.

32:12 Then when you save the map document it doesn't hard-code the path of the actual data...

32:17 ...it will record the folder in relation to the map document, okay?

32:22 Therefore, if you move both of these together, your map document will always work.

32:28 So, when you are saving your work and you think you'll be moving a lot of the data around...

32:32 ...maybe you'll want to choose this relative path name as sort of a nice, easy way to be able to handle that situation.

32:41 Oh yes, interactive map, forgot about that!

32:43 It's still my turn.

32:47 Okay.

32:48 So I'm just going to go through one really quick example of how to be able to make an interactive map more interactive.

32:53 So, the idea is is that interactive maps will be used for editing and analysis...

32:58 ...potentially be used for the Web, or for kiosk applications.

33:02 So what I was going to show you is an example of how to be able to make your map document more efficient...

33:07 ...and we're going to use this thing called the Map Service Publishing toolbar...

33:11 ...to be able to read the contents of your map document to make it more efficient.

33:15 Now, this might be news for a lot of people here, but for those who have used ArcGIS Server...

33:20 ...this is something that we have emphasized our server users to use...

33:24 ...to be able to look at the contents of a map document to serve on the Internet.

33:28 But guess what? We can use it too.

33:31 So let's go ahead and add in that toolbar.

33:35 There's the Map Service Publishing toolbar.

33:39 Its main intent is to be able to create something called an MSD file, a map service document,

to be able to publish for a Web service.

33:48 But in our case let's just go ahead and take advantage of this Analyze Map button.

33:54 So what it's going to do, it's going to take a look at the contents of our map.

33:58 It's going to offer up some information about how this map could be perhaps built a little bit more efficiently.

34:06 So it's going to bring up this dialog box which will highlight some of the different errors or warnings or messages...

34:14 ...that are things that they are suggesting that we might be able to implement to make this map document perform better.

34:21 So for example for our rasters, it doesn't have pyramids. So maybe we want to incorporate pyramids for our rasters.

34:27 Notice here we have a note that all of our layers are drawn at all scale ranges.

34:31 So maybe we want to incorporate those scale dependencies...

34:35 ...to be able to make those layers draw faster, ultimately make our map draw faster.

34:42 There's also an error here that says that Maplex Label Engine is not supported.

34:47 That's of course in context to Server.

34:50 In our case, it's not a big deal, we're using Desktop, we can still use Maplex.

34:55 And this error only shows up for Server users of 9.3.1, okay?

34:58 In 10, this has been resolved.

35:02 So this is a great way to be able to just do a quick look-see, let this Analyze tool take a look at your map document...

35:08 ...and let it offer you, make some suggestions on how to make this map document perform better.

35:15 All right, my apologies.

35:16 We'll now hand it back to Danielle who is going to talk more about the editing side of working with ArcMap.

35:27 All right. Well, good morning.

35:29 We're going to switch gears now and look a little bit at some editing tips and tricks, and again...

35:33 ...everything that Mark and I are showing you is applicable to what you could do in both 9.3.1 and in 10.

35:41 I'm going to do a little bit about editing, and then we're going to go on and talk a wee bit

about 10 as well...

35:46 ...as you get ready to kind of migrate in that direction.

35:49 I know some of you are getting started with that...

35:51 ...but I think that a lot of you would be excited when you get back after conference, as well.

35:57 So first of all, just looking at a few tips about editing.

36:01 These tips are going to focus on efficiency, getting control over these features...

36:07 ...and being able to navigate a little bit better in ArcMap.

36:11 There's nothing more frustrating than when you saw maybe you had an issue in one area, and you can't get back there.

36:17 Either you can't find it again, or you can't find it quickly, or to let somebody else find it, as well.

36:24 So, navigation, control over the features, and efficiency within the ArcMap environment are the three places we'll focus this content.

36:33 I'm going to do a few little slides, but then after that, I'm also going to demonstrate most of the content.

36:41 So, first of all, on the efficiency topic.

36:44 You have the ability to be able to customize toolbars the way that you want them to be.

36:49 It's like this in many of the Windows applications.

36:53 So usually when you go to add in a new toolbar, you say View, Toolbars, and you pick from the list.

36:59 Well, way at the bottom of that there is a Customize, and if you open up that Customize...

37:07 ...it then sort of opens the whole map environment, I guess...

37:09 ...and you could say, you could rearrange tools on the toolbar, you can add new ones in.

37:15 We don't have the space on our toolbars to be able to add all of the tools that are actually available to you in ArcMap.

37:21 So if you search through that Customize window you'll find some extra tools that might be very helpful to you.

37:28 They're written up in the Help, it's just that we don't have them all exposed.

37:32 You can also create hot keys.

37:34 I don't know about the rest of you, but this whole business of traveling across the screen all the time to get the tool that I want...

37:41 ...sometimes we could make use of the other hand and use some of our keyboard shortcuts.

37:46 And that's what we're going to learn a little bit more about, as well.

37:49 So customizing your toolbars, menus, and hot keys on the keyboard.

37:56 Another thing is controlling those toolbars...

37:59 ...and one thing I can suggest is that if you hold down the Ctrl on the keyboard as you move your toolbars...

38:06 ...they won't be spontaneously docking in locations that you don't want them to.

38:10 This will keep them floating over the top.

38:17 Now, a little bit about editing, and attribute editing, in particular.

38:23 There is a very nice field calculator when you open up the table and you want to edit values within a field.

38:29 And many of you will be familiar with this.

38:32 But the thing that most people don't notice on that menu is that there's this little teeny tiny control right next to the list of your fields.

38:41 And many times you're scrolling up and down and you can't find the field that you want...

38:45 ...it would be so nice if they were in alphabetical order.

38:49 Well you can do that with this little teeny tiny button; it's there for 9.3.1 and for 10, it seems even smaller at 10, though.

38:57 And that is that you can sort these fields in ascending or descending order...

39:01 ...and thus you'll be able to find them a lot faster as you put your calculations together.

39:09 Did anybody know about that?

39:12 It's so tiny.

39:14 But anyway, take a look for that one.

39:18 A second recommendation when you're working in the tables and that is using the Find and Replace option.

39:25 It's just like, again, if you were working in a Word document or something like that, you can do that within your tables.

39:33 And, in particular, I'll draw your attention to the fact that you can select only certain fields within that table...

39:41 ...and then you could do the search and replace on those fields.

39:46 Now, what about those times where you take several fields, and you concatenate them

together?

[39:52](#) And then you find out that there's these special characters, or maybe you have multiple space...

[39:57](#) ...in between those fields that you just brought together.

[40:01](#) Well, the Find and Replace is your best option for fixing that.

[40:06](#) So, you can just do find two spaces, and let's replace it with one space.

[40:12](#) And this is going to be a lot faster than using that field calculator.

[40:17](#) So you might want to check that out.

[40:18](#) It's on your table down at the bottom on that Options button.

[40:26](#) And one more thing about editing, and then we'll get into the software.

[40:30](#) With the Attribute Editor, when you select multiple features...

[40:35](#) ...you can then have the opportunity to edit them individually, the attributes.

[40:40](#) So you see on the left here, you've got a series of bridges that have been selected and you can see each one of their IDs there...

[40:46](#) ...and yes, you can visit each one individually and change its attributes.

[40:51](#) But what if you want to change one global attribute? Maybe a code's changed or a name's changed of some sort.

[40:57](#) Well, you can click on the very, very top of that and change the attribute for the whole list of features that you've selected.

[41:04](#) So this helps be a lot more efficient with your editing.

[41:08](#) So that's the Attribute Editor.

[41:13](#) Now, one more note about navigation.

[41:15](#) So how many of you use bookmarks?

[41:19](#) Okay, excellent.

[41:20](#) That's your first key way to be able to get back to particular areas that you've been working in.

[41:27](#) Now, my next question though is, how many of you have used My Places?

[41:33](#) Yeah, that's what I thought.

[41:35](#) Have you ever wished that those bookmarks were available to you in another map document?

[41:41](#) And that maybe you didn't have to...

[41:42](#) It's really nice now at 9.3 and 9.3.1, we can export those bookmarks and you can import them

into another map doc.

41:49 But wouldn't it be nice if your study area, or you could put in a bookmark to your town, or whatever it is that you're working on...

41:57 ...and you could have that available to you not only in all of your map documents...

42:02 ...but maybe in ArcGlobe, or ArcScene, or any other desktop application that you work with?

42:09 That's what My Places is all about.

42:12 So you see here on the slide a little description about the difference between them...

42:16 ...but essentially bookmarks are available in your map document, and that's where they're stored.

42:21 And in fact they're data frame specific.

42:24 They're not even available to any other data frame.

42:27 But, your My Places, that's something that's stored in an outside file, and that can be available to you in different applications, too.

42:37 Okay, well let's take a look at a little demonstration here.

42:53 A little bit of musical chairs.

42:57 And then yeah, can you do the switch, please? To A.

43:02 Okay, well let's take a look at some of this in action.

43:05 We are looking at some data for Corvallis, Oregon, a very beautiful place.

43:10 And this data, we're going to use this to look at some of the navigation tips that we have...

43:15 ...and also to look at some of the editing ideas that we have.

43:19 So first of all, just really basic.

43:22 I can take my mouse and with the wheel on the mouse I have the ability to zoom out or zoom in.

43:29 Remember those properties that Mark showed you if you want to change anything about the way your mouse behaves.

43:35 But as I zoom in or out with this roller ball, you see that there's also a little tip that shows up to tell you what scale you're zooming to.

43:46 Now, in addition, I was telling you a little bit more about making use of our other hand...

43:51 ...and not having to go all the way across the window to get my zoom in/zoom out, and so on.

43:57 So, on my keyboard, I have the zed, or Z, X, and C keys down in the lower left corner.

44:06 So, watch my mouse here, and when I use the Z I get the zoom in; if I use X, I get zoom out;

and if I use C, I get my pan. Okay?

44:23 So right there, three fingers on the keyboard can help improve your efficiency and your performance.

44:30 If you're wondering about some of these shortcuts, jot them down in your notes.

44:35 We also have a little keyboard shortcut handout that we're going to give at the end of the presentation.

44:42 Now, one that I want to add to this, that I figured out this year...

44:46 ...because I keep challenging myself that maybe once a week, once a month, I add in one more keyboard shortcut...

44:52 ...and that is the use of the greater than or less than sign to be able to return to the previous extent...

44:59 ...or to go to the next extent, that I've been using in my sequence.

45:04 So, Z, X, C, smaller than, greater than.

45:12 Now, it's fine to be able to navigate interactively with the screen...

45:16 ...but what about going to specific scales that you want to work at?

45:20 So we have our scale display up at the top here...

45:23 ...and it's usually pretty populated with some default values that ArcMap has.

45:29 So I can zoom to 1 to 10,000, 1 to 24,000.

45:33 But what if you work at other scales that you'd like to include in this list?

45:38 Well, of course you can type in a different scale within this area here, and it will zoom to that scale.

45:46 And then from that point forward, you'll get that in your list of available scales.

45:52 However, if you're working on a production effort, and you have a lot of people who are working with ArcMap...

45:59 ...you can customize this list so that everyone gets the same list of standard scales.

46:05 So here you would be able to maybe type in 15,000 into the list...

46:11 ...and add it in and make it a part of that main pull-down every time you open up ArcMap.

46:18 In addition, if you want to make it available to other people, then you would be able to save those scales out to a text file.

46:26 And you can give that text file to your colleagues, maybe save it on a server...

46:30 ...so that people can access it and then they would be able to load that into their ArcMap

environment.

[46:37](#) So that does a lot for standardization.

[46:41](#) In addition, if you prefer not to see the scale being displayed as the ratio...

[46:46](#) ...then you also have the ability to be able to display it perhaps with units, as well, and your option as to how you want to do that.

[46:59](#) Okay. Well, it's been brought to my attention that we have a little editing issue that's come up...

[47:05](#) ...and so I want to head over to Grant Circle Area.

[47:10](#) So I'm going use a bookmark to take me over to Grant Circle...

[47:13](#) ...and you might be starting to see where I've got a little bit of a problem that I have to fix up.

[47:19](#) Now, in this case here, I used bookmarks.

[47:22](#) And, these bookmarks, I have the opportunity here to be able to manage bookmarks.

[47:27](#) So these are available to me here in this map document and within this data frame.

[47:32](#) If I go into the Manage dialog here, I can navigate these bookmarks.

[47:39](#) But not only that, I can save those bookmarks out as well.

[47:43](#) So for me, I'm going to save out all of my Corvallis work area bookmarks...

[47:50](#) ...and I'm going to save these into my working folder for now.

[47:57](#) They're going to create a DAT file that I'm going to make use of in a few minutes.

[48:04](#) So don't forget about this file that I'm creating.

[48:08](#) OK, so we'll come back to that.

[48:11](#) Again, you would be able to export these bookmarks and give them to other people to be able to use...

[48:17](#) ...maybe put those with your scales on the server as your standard set of settings for the ArcMap.

[48:26](#) Okay, so what about this editing issue that I have?

[48:29](#) Well, I want to tell you a little bit about a few options that you can set up for editing...

[48:34](#) ...and then we're going to have to take a look at what's been going on over here in this area.

[48:39](#) It appears I've had a few of my parcels have kind of slipped over a little bit, so we need to get them back.

[48:46](#) I can open my Editing toolbar up here on...from my Standard toolbar.

48:51 By the way, this is called the Standard toolbar, and if ever this one disappears, it's the Tools toolbar.

48:58 And this continuous Pan and Zoom, you may have noticed on mine, this is one of those ones that I added in from the Customize area.

49:07 I really like this one. So...and it's not out by default, so you might want to look for that.

49:14 Okay, editing.

49:16 So here's my Editing toolbar, and on here I've got editing options.

49:21 Now, I wonder what could have occurred to create this problem.

49:26 It seems that this group of features that was selected has moved ever so slightly.

49:32 Now I've made it a little more extreme so you can see it on the screen.

49:35 But this is something that can commonly happen, is that just a little tiny move can wreak havoc in your data.

49:42 So, a setting that you could use as part of your editing options to try to prevent that is the Sticky Move Tolerance.

49:51 Has anyone heard of the Sticky Move Tolerance?

49:55 Okay, a few of you have. This is great.

49:58 What this does is that it ensures that you have to move x number of pixels to officially make this a move.

50:06 It's very rare that you actually want to move one or two pixels.

50:10 And so, you can set it to a value that you think is reasonable based on the density of your data.

50:17 I've made mine huge so that you can see when this happens.

50:21 So I've got it set at 50. You probably don't want it that big.

50:26 Also Snapping Tolerance, so when you're going to snap onto the end or the corner of features...

50:32 ...you want to have how far, how close do I have to be to actually snap to those features?

50:38 And finally this Show snap tips.

50:41 You'll see this in action in a few minutes.

50:43 I really like this one to help me with my editing.

50:47 Okay, Start Editing.

50:50 We're ready to take care of these few parcels here.

50:53 So I'm just going to draw a little box to select these parcels.

50:57 Now how many of you think that I actually got just six parcels selected then?

51:04 It's not too likely, is it?

51:06 I didn't do anything to chane...to control what I'm actually selecting.

51:10 And if I go over to my Selection tab...

51:13 ...I now discover that in fact there are some bigger polygons around here that I have selected as well.

51:20 So now if I go and fix these parcels, I'm also fixing or breaking the city polygons, also.

51:27 So the way to change this is, I have a couple of options.

51:30 First of all, I can right-click on City Limits and clear that selected feature.

51:36 Same with this other background data here.

51:40 But more efficient than this, would have been for me to go over to this Selection tab and say...

51:46 ...well, what do I really want to select, anyway?

51:49 And I can use the Ctrl on my keyboard to make everything unselectable and then to say, I want to use parcels.

52:00 So, Ctrl and these check boxes, and this is the case on the display and on the editing on the selection...

52:08 ...will allow you to turn on or off all the layers, and then you can get a little more control that way.

52:15 All right, we've got the six parcels.

52:18 Next thing is, has anybody ever noticed these Xs that show up in the middle of your selections?

52:24 These are very useful.

52:27 If you hold down the Ctrl key on your keyboard, your cursor changes and allows you to be able to move this selection anchor.

52:37 So, in my case, I want to move this selection anchor down to the corner here and, what's my problem?

52:46 Yeah, I'd forgotten to set up my snapping.

52:48 So let's go into the Snapping.

52:50 And by default it usually opens up like this.

52:53 I tend to drag that down to the bottom of my table of contents.

52:59 I can rearrange this a little bit so that I can see everything, and I want to be able to snap to the vertex of my other parcels.

53:12 Okay, so we'll close that up and now maybe we'll do a little bit better with this.

53:15 So, Ctrl on the keyboard, grab the selection anchor, and now I can snap it down to the very corner here.

53:24 Did you see that little Snap Tip that came up?

53:27 That was what I set up on those editing options.

53:30 Now, based on this selection anchor, I can move my set of parcels.

53:36 Moving, moving, moving, ah.

53:38 Okay, finally it moved.

53:40 That was your Sticky Move Tolerance in action.

53:43 Remember, I set it pretty big so that you would see what happened there.

53:47 So let me do that one more time.

53:48 Grab the group of features.

53:50 Moving, moving, moving, moving, moving.

53:52 Okay, now it's officially a move.

53:55 Imagine this on a much, much, much smaller scale, using two...several pixels, perhaps.

54:01 But that would help you prevent some of these little tiny accidents that happen.

54:06 Okay, so we snap that into place, and now we've repaired that error.

54:11 Now, I know that that might be a little bit ideal...

54:14 ...but it gives you a bit of an idea of how you can move those...use those tools to navigate that editing.

54:21 Now I can't resist to show you this rotation, as well.

54:25 You've got your rotation and if I hit S on the keyboard, I also get a rotation anchor.

54:31 So this is yet another anchor that I'm able to use, where I can move that anchor...

54:37 ...and then now I rotate around the selected one, and I can use the new rotation anchor to snap into place as well.

54:48 Yep?

54:49 [Inaudible audience question]

54:51 S on the keyboard.

54:52 So you have your Rotate tool and in order to get the rotate anchor, it's an S on the keyboard.

55:00 The Help will also tell you a little about that too, but...and it looks like a plus, rather than your selection anchor, which is an X.

55:11 Okay, let's take a moment just to look at those My Places and then we're going to move on and look at a little bit of 10.

55:18 Tools...in ArcGIS 9.3.1, My Places is located under the Tools menu, My Places.

55:29 And inside of here, oh, I've actually already got them loaded up.

55:33 I've got my Corvallis already loaded and I've also got a couple of other locations that I use frequently in my ArcGIS work.

55:43 Now, if I hadn't already loaded them, I could say Load...

55:46 ...and I could go over to that Corvallis DAT file that I exported from my bookmarks...

55:50 ...and I could bring that in to the My Places.

55:56 Now let's see how we could use those.

55:58 So I'm going to head over to another map document that I've been doing some work on.

56:04 And over here I've just got one of the ArcGIS Online Services being displayed...

56:09 ...just so that we can take a look at how this My Places works.

56:13 So under Tools, again, here, I can open up My Places...

56:17 ...and now I can say I want to go to that same Grant Circle Area where I had a bit of an editing issue.

56:25 So then I can say Zoom To this area, close my places...

56:30 ...and now as I zoom out, I see that I've actually gone over to this area.

56:35 In this case I'm showing it in another map document.

56:38 You would have the same thing if you went into ArcGlobe or ArcScene or any other [ArcGIS] Desktop application.

56:44 Your My Places would be available.

56:48 Before I forget to mention, in ArcGIS 10, My Places is actually on another toolbar called the Data Frame toolbar.

56:57 So if you're excited about this My Places, when you get to 10, look for it on Data Frame toolbar.

57:02 It's still there, it still behaves the same, in fact it's even better, but not quite in the same spot.

57:09 So.

57:12 Okay, I'm going to move back over there.

57:27 Okay, now we are going to move into a different area...

57:32 ...and start talking a little bit about the transition between 9.3, 9.3.1, over to working in ArcGIS 10.

57:42 So the main place to get information about ArcGIS 10 really is the What's New center, and this Web page highlights all...

57:51 ...all of the new things that are going on, and very importantly helps you with, How do I learn this?

57:57 What kind of training is available?

57:59 So if you look in the lower right corner of this window, you'll see that there's some highlights about the training.

58:05 Lately we've been doing a lot of one-hour live training seminars...

58:10 ...which we actually record and keep those as free training seminars.

58:15 They're just 60 minutes long, we have demonstrations, we have question times...

58:19 ...and they're a really good way for us to get focused information out to you...

58:24 ...about different softwares and about different options you have.

58:28 So do be sure to visit the What's New center.

58:33 Now, let's take a look at this software and see how we get around in ArcGIS 10.

58:39 See how well I can switch my mind over, right?

58:42 It's actually not that different.

58:45 There's a lot that's, that, that, behaves differently, but I think you're really going to get used to this quickly...

58:52 ...and really appreciate the things that are different about it.

58:56 I shouldn't say it's not that different.

58:57 It is different, it's just that the things that you're used to and familiar with...

59:01 ...and all these things that we've been talking about so far will still apply...

59:05 ...but now you've got some new things that you can add in to that as well.

59:10 Okay, so the first thing is to get used to how things are laid out.

59:15 So you still have your table of contents over here on the left, but now you've got your Catalog window as well...

59:22 ...so we can access ArcCatalog right here within one application.

59:28 So this is pretty great.

59:30 In addition, getting used to the way that these windows work, and how to move them around.

59:35 So you'll see on each one of these, you've got these little thumbtacks that allow you to pin, or unpin, the window.

59:43 So if I pin this down and the thumbtack's vertical, that means it's just going to stay open.

59:49 If I unpin it, now it retracts, so that when I hover over top of it, it will open up...

59:56 ...but when I move away from it, it shrinks back down again.

1:00:02 Now, interesting when I do that, watch what's happening to the map.

1:00:06 The map itself is not redrawing on you, so nothing's changing about how your data's being displayed.

1:00:11 So that's pretty good for your efficiency there.

1:00:15 By default, yes, it's going to show up on the right-hand side.

1:00:18 If it ever disappears on you, you've got the buttons up at the top here to open up the Catalog window.

1:00:24 You've also got the Search window, and you've got ArcToolbox, and so on.

1:00:28 So all your shortcuts are up there to get them back.

1:00:32 Now, back to navigating with this Catalog window.

1:00:34 If you don't like the location where it is by default, you can move it and put it wherever you want.

1:00:40 You just pin it down, grab the top of it, and now you can see these little arrows that show up on the display.

1:00:47 So, if I wanted to put this over on the left-hand side, I could hover over that little arrow that was in the middle.

1:00:56 I take it now, if I want it on the far left side, I hover over the far left arrow, and so on.

1:01:03 Bring it down to the bottom.

1:01:06 And I'm going to put it back over to the right.

1:01:09 Okay?

1:01:10 So you can control all of these windows and have them display wherever you would like.

1:01:18 Okay, so I'm looking at the same data as Mark was, for the Yosemite National Park...

1:01:24 ...and I wanted to show you a couple of things about some of the layer adding and some of the symbology.

1:01:30 So again, here's my shortcut, C, pan this data over a little bit.

1:01:35 And if I open up the Catalog I want to add in some campgrounds...

1:01:41 ...and then we're also going to add in some ranger station data.

1:01:47 Notice in Catalog that right away I've got this home directory...

1:01:51 ...so it takes me directly to the area where all my data's being stored...

1:01:55 ...and all the information's available to me. It's real quick to be able to get that.

1:02:00 Now, campgrounds.

1:02:02 I want to right-click on this and I want to change some of this symbology.

1:02:07 So, if I go over to the Symbology layer, just like before, I go to Unique Values.

1:02:13 I'm going to go do this by type.

1:02:15 Now I want to assign a new symbol for the campgrounds; these green dots don't really represent much.

1:02:22 The difference here in 10 is that now I have the ability to search for the symbol that I want to use.

1:02:28 I don't have to scroll up and down.

1:02:31 Oh boy, it's on its way already.

1:02:36 This computer.

1:02:40 This computer, we're getting used to our new computers, they've got mice everywhere!

1:02:45 So there's a little mouse in the middle, there's a mouse here, there's mouse here, and I have seemed to have touched one of them.

1:02:50 Okay, we will spell this properly.

1:02:57 Campground.

1:02:59 There was some nice symbols there, but I was planning to use this one here. The civic.

1:03:04 But what you see is that it does a search and it will bring you back all of the symbols that relate to the keyword that you've typed in.

1:03:12 So I bring in the campground symbol, and then I say Add All the Values...

1:03:15 ...because I want to symbolize existing and proposed.

1:03:19 Now, if I want to change these, I can click on it individually, I'm going to keep the middle of it white...

1:03:25 ...and then I'm going to edit this symbol a bit further and make those proposed campgrounds orange.

1:03:32 So, similar to before, but the nice part is to be able to search for those, to be able to search

for those symbols.

1:03:43 Now, on your, I wanted to show you a little bit about how we can arrange our tables.

1:03:49 Tables have changed quite a bit for 10.

1:03:51 All for the better.

1:03:53 So if I open up my Campgrounds table here, and I want to dock that.

1:03:57 See how I get those little arrows again?

1:04:01 So I'm going to take these tables and actually I'll dock this down at the bottom.

1:04:06 I've got my campgrounds, now I'm going to open up my Ranger Stations.

1:04:12 Well, it appears that it opened right on top.

1:04:15 But in my tables, which now have a bunch of buttons up here...

1:04:19 ...I can arrange these tables vertically, so that way I can now look at these two tables side by side.

1:04:31 Down here, I can select a group of features.

1:04:35 So I've got my proposed campgrounds.

1:04:37 If I change my display up here, you'll see that I've got the proposed campgrounds selected in the display.

1:04:45 So different at 10 is that we can go over and look at these in the Selections button here...

1:04:51 ...the List by Selection, and what you see is that I've got the three campgrounds.

1:04:56 So a lot like how I did the right-click and Clear Selected Features.

1:05:00 If I want to clear them now, I click on just the picture that says to Clear the View Selection.

1:05:06 So, a few a things that again, a little bit different way of showing them, a little bit way of nav...different way of navigating them...

1:05:13 ...but always improving it and making it a little bit more efficient for you to be able to get the results you need as quickly as possible.

1:05:24 Okay, I just want to show you one or two more things here and then we'll take some time for questions.

1:05:29 Real quick on this, I'm going to switch over to the SAR data frame, or the Search and Rescue.

1:05:36 I hold down Alt, and then I activate that data frame.

1:05:41 So that's your quickest way to activate the other data frame.

1:05:44 Here you see we've done a suitability analysis.

1:05:47 This is a raster layer that was done using some geoprocessing...

1:05:51 ...to figure out the most likely route that this hiker may have taken to exit from the point that they were last seen.

1:06:00 Now, for us, I'd like to show you a little something new as well in which you have the ability to create or to control...

1:06:09 ...the performance of your map documents even further than just using that map.

1:06:14 Service Publishing toolbar that Mark showed you.

1:06:18 So here I can create a new basemap layer.

1:06:21 I right-clicked on the data frame and said New Basemap Layer.

1:06:24 Then what I want to do is take several of these layers, so I've held down Shift, selected them...

1:06:30 ...and I'm just going to drag them down into the new basemap layer.

1:06:36 So, what this does, is that it puts all of these layers together, and it's using our optimized drawing engine...

1:06:42 ...to be able to display these layers to make them a little bit faster in terms of their display.

1:06:50 When you use this, it's excellent for when you're doing editing, when you're doing map display, and so on.

1:06:56 If you do want to go into these and change their names and stuff like that...

1:07:00 ...well, you would probably have to take them out of this basemap layer.

1:07:04 Now I'm not going to go too much further with this.

1:07:07 You'll see there's a little warning here.

1:07:10 This basemap is using the same drawing engine that the Map Service Publishing toolbar also directs you to...

1:07:18 ...and is preparing for, for ArcGIS Server.

1:07:21 Now, if I look on this right-click, however, I can analyze this basemap, just like Mark did...

1:07:29 ...and it'll open up the Prepare window, and show me all of the things that I could do to improve the performance of this map...

1:07:39 ...and to improve the performance within ArcMap, or if I want to go further and publish this to ArcGIS Server.

1:07:46 So I encourage all of you to try this out, even for your [ArcGIS] Desktop operations, too.

1:07:51 Here you'll see that raster layer.

1:07:53 Our suitability doesn't have the pyramids built for it, either.

1:07:57 How can I fix this?

1:07:58 It will either be on the right-click, and you've got all these help links, or, you can go to the Search window...

1:08:05 ...and here on the Search window I can look for the tools that will help me solve this problem.

1:08:11 You can filter on the Search window based on maps that you want to look for, 'cause it's looking for data.

1:08:17 It's looking for maps, and it's also looking for tools within ArcGIS.

1:08:21 And here I've got that Build Pyramids.

1:08:24 So I could quickly build those pyramids and show that.

1:08:29 Okay. I think finally I just wanted to show you, how many of you have seen these Data Driven Pages?

1:08:39 Anybody seen...? Okay, Data Driven Pages is the option in 10 for being able to create a multipaged book.

1:08:47 So, like a map, a map book.

1:08:49 Prior to 10 you had a script that you could use called DS map books.

1:08:53 At 10, we will use what's called the Data Driven Pages.

1:08:59 This is another map document that I previously prepared...

1:09:03 ...and in here what you need to do is just use the Data Driven Pages toolbar.

1:09:10 On this toolbar you've got a Setup button, and it's very reasonable and easy to be able to set up these Data Driven Pages...

1:09:18 ...I've just enabled it, I say which data frame I want to use, what the guide's going to be.

1:09:24 Set that up.

1:09:26 And then it allows me in the data display, so Data View display, to just navigate through...

1:09:33 ...based on the grid that we had for the search and rescue, to be able to look at the map based on that grid.

1:09:41 But if I switch to my Layout View, it also allows me to create these...to create these maps based on the same grid...

1:09:51 ...and now I've got multiple pages in my map book and I can navigate through these.

1:09:59 Okay?

1:10:00 Is everybody following that?

1:10:04 Okay, now these map books, they can be exported to PDF and it would create a multipage PDF.

1:10:12 So just File, Export.

1:10:14 And then you can create a PDF document that would contain all of those different pages, as well.

1:10:23 All right, so let's just wrap things up and then we'll take some questions.

1:10:29 So one thing that I wanted to bring up about the ArcGIS 10 is that the context-sensitive help.

1:10:39 Context-sensitive help is where you, and I highly recommend you use this...

1:10:42 ...it's the question mark at the top with an arrow and you take that, take that button...

1:10:48 ...and you're able to click on information, on a tool let's say, to get information.

1:10:56 Okay, so that's this one up here with a question mark, What's This?

1:11:00 And then you can click on tools, you can click all over the place in ArcMap to get help.

1:11:06 That context-sensitive help, unfortunately you'll have to apply a little Windows patch to get that to work.

1:11:14 And so it's KB article 32530.

1:11:17 This'll be in our slides published.

1:11:19 It gives you excellent instructions on how to just quickly repair that context-sensitive help.

1:11:25 But I highly recommend that you use that, along with the Web help, working forward from your 9.3.1 to your 10.

1:11:33 So in summary, we've given you a lot of tips and tricks about working with ArcMap in various different areas.

1:11:39 There are a lot of sessions here this week that are going to focus in on working with tables and reports, working on your editing.

1:11:46 We just wanted to expose you to a few areas and to wish you the best at UC.

1:11:54 So we're happy to take some questions.

1:11:55 I'd like to remind you to please fill out your evaluations and Mark's going to put...

1:12:01 ...we've got some of these ArcGIS shortcuts handouts that we'll put down...

1:12:07 ...I think we'll put them on chairs maybe at the ends of the first aisle and on the back table.

1:12:13 These handouts, although they say ArcGIS Desktop 10 on the front...

1:12:17 ...when you open them up, it also has all sorts of things like this X, Z...

1:12:23 ...all the different keyboard shortcuts, but it also tells you which version of the software the keyboard shortcuts go with.

1:12:30 So these actually extend back to 9.2, 9.3, and 10.

1:12:36 Please take one each for now.

1:12:38 We just have a limited quantity for the group.

1:12:41 If you want to hang out, if there's a few extras, you may take another one...

1:12:44 ...but we'd appreciate it if you'd just take one each for now.

1:12:48 Thank you very much and we'll take questions.