

# Project 2019



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## Section 1 – Course Introduction

### Video: Introduction

**Deborah:** Hello there and welcome to our course on Microsoft Project 2019. My name is Deborah, and I'm your instructor on this course. Now, if you've studied Microsoft Project with Simon Sez IT before, then you may have come across one of the other project courses that we have available. So you can see we have Basic and Advanced versions for 2016, 2013, and also 2010.

Now, as I mentioned at the start, my name is Deborah, and I'm a MOS certified tap accredited IT trainer. And I've been working in the IT Training arena for about 11 years now. And I have a background in the IT industry. And I've been working in the IT industry for about 24 years, so quite a lot of time. I've worked in both the public and the private sector. And I've conducted predominantly Microsoft training across roughly 25 different countries. And I've taught Microsoft Project in classrooms many, many times. And my own experience extends to work in both the private and the public sectors in the UK, and also in Australia. So hopefully that gives me a really good foundation in which to be presenting this course for you today.

Now, I mentioned just now that you may well have studied Microsoft Project with Simon Sez IT before. And I'm going to assume on this course that you have pretty much no knowledge of Microsoft Project. This really is a course that's aimed primarily at people who are new to using Microsoft Project. So if you have used it before, you may find that some of the early sections involve material that you're fairly familiar with. But particularly for the first two or three sections, I do suggest that you go through them, because in those I'll cover some of the main aspects of Project 2019 that may be different from the version of Project that you're used to. And I'll also cover things like what's new in Project 2019.

If you are completely new to Microsoft projects, and I appreciate that many of you will be, I will be assuming that you're familiar with Windows software. So, you know how to do some basic things like copy and paste. And to some extent, I'll assume that you may have used the Microsoft Ribbons before, although I will explain it just in case you haven't. And in particular, I will assume that you have a good basic knowledge of Project Management itself. So you'll know what I mean when I talk about things like Schedule, Resources, and Over Allocation. If you don't understand some of those basic concepts in Project Management, you probably need to cover a bit of basic material in Project Management in general first, before you go through this course. Because this course does very much rely on a reasonable knowledge of what's involved in managing a project.

Now one thing I'm not going to do is assume that we're managing projects in a particular field. My fields always tended to be IT one way or another. But in fact, the main sample projects that I'm going to use on this course, don't really have anything to do with IT at all. We're going to refit a bathroom, or rather you are and I'm going to organize a wedding. Now neither of those have anything in particular to do with IT. Now what you can see here is the Project Professional

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2019 Start Screen. And we're talking about the desktop software here. We're not going to be covering things like Project Online in this course.

So in the next few sections, we're going to talk about the structure of the course. And in particular, I'm going to start to talk about the projects that we're going to work through as we're working through the course. So essentially, if you already have Project installed on your PC, you can skip the next section and go straight to the one after that where I'm going to talk about the structure. For those of you who don't have Project already installed on your PC, you'll need to go through the next section with me and I'll explain what your options are. So that's it for this section. I will see you in the next one.

## Video: Acquiring Project 2019

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, I want to talk about the versions of Microsoft Project that are available. And for those of you who don't yet have Microsoft Project installed, I recommend the version or versions that are most appropriate for use on this course. So I'll talk briefly about acquiring and installing Project 2019.

Now, one thing you'll hear me say quite a bit on the course about Microsoft products, is that I'm looking at a page on [microsoft.com](https://microsoft.com) here, that's probably going to be different by the time you come to look at it. They tend to change these pages on a really regular basis, which in itself is fine. But it means that I need you to basically search for the equivalent of this page if you want to get the latest information. Now, what's important about this page is that it gives us a nice big link to jump to all the different Microsoft Project products that are available through the Microsoft website. So let's click on, "See products and pricing".

And what you'll see first are two tabs at the top here Cloud Based Solutions, and On-Premise Solutions. And you might be thinking to yourself, well, what's the difference between the two? Well, the Cloud Based Solutions, which we see here, which, if I'm honest, is Microsoft's preferred solution, this relates to Office 365. Which is probably a term that you've heard of floating around even if you haven't used it. And there are three options here for Office 365; Project Online Essentials, Project Online Professional, and Project Online Premium. And each one of those has various advantages and disadvantages to buying it. Now, the Cloud Based Solutions are subscriptions. That means you pay a monthly subscription in order to essentially rent that software from Microsoft.

But what it also means is that if you do buy an Office 365 subscription, it means that your version of Project will always be kept up to date automatically, which is a really, really good feature. It means that you don't have to buy the next version of Project in order to keep up with the latest updates. So the subscription option is a really good option. Now, this course is Project 2019. And that comes under this second option On-Premise Solutions. On-Premise basically means a one-time standalone purchase. So you can see here, the prices are a lot higher. And we have two options that we could buy if we wanted to; Project Standard and Project Professional. And you can see the difference between the two of them there.

So Project Standard is On-premises Project Management, for those who don't need collaboration tools and other advanced features. And Project Professional as you would expect is a comprehensive On-premises Project Management solution. So which one you choose is entirely up to you. Now Project 2019 is only available as an On-premise solution. Essentially, this latest version 2019 is really for people who haven't subscribed to Office 365. So basically brings Project 2019 in line with all the updates that are constantly happening in the Office 365 versions of Project.

So essentially, if you've had in the past Project 2016 through Office 365, it's going to be very, very similar to the On-premise version of Project 2019. So there will be a lot of crossover, a lot of the things available in 2016 are available in Project 2019. There's really not too much of a

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difference between the two. But as we said, our focus on this course is in Project 2019. So in terms of acquiring the actual software, if you don't have it on your PC, you can see there you have a Buy Now link. And, I'm on the US version of the website, which is why it's in dollars. So if I was going to purchase Project Standard, I could click on buy now. And that will take me through to my cart where I can purchase Project Standard 2019. And that will come to you as a digital download. So you can literally click on the link and it will start off the project installer. So very, very simple to install.

Now, I can't give you exact installation instructions because that will depend on a lot of the settings that you have on your PC. But, I'm sure we've all downloaded and installed things in the past. It's always a very straightforward process. So I don't envisage you having too many problems with the actual installation of the software. So there we go, install the software and then you'll be ready to start off the course. I'm ready to start, I hope you are as well. Please join me in the next section.



## Video: What's New in Project 2019

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, I'm going to take a very quick look at what's new in Project 2019. And one of the reasons that it is a quick look is that there isn't really very much of a difference between Project 2019 and Project 2016 in terms of functionality that's specific to Project. So I'm currently looking at one of the pages on office.com. And it's called; What's New in Project 2019.

Now, as I pointed out before, I normally say at this point that you need to check the latest information. Well, I don't expect they're going to put anything else new in Project 2019. So when you come to watch this video, I don't expect any other additions. But let's go through some of the main points anyway, because there are just a few of them. So the first thing it says here, the opening paragraph is if you're upgrading to Project Professional 2019 from 2016, you'll still have all of the features that you're used to, And you'll notice a few new ones as well. And this is a really interesting one actually; Linking Tasks using a drop down menu.

So instead of having to remember the idea of a task, when you're linking tasks together, what you can do is just click in the predecessors column, and from the drop down arrow, you'll get a list of all of the different tasks, so you can create links between them very easily. So it's a really nice new feature in 2019. You'll also see the addition of a Task Summary Name field. And as it says in here with a long list of tasks, it can be difficult to know what a task is indented under in the overall Project plan. So the Task Summary Name field is a read only field. And it shows the name of the tasks, summary tasks. So again, that's going to be really helpful.

Now I realize at this stage in the course, this is probably going to mean nothing to you. But as I said, there are only three or four new features in here. So I thought I might as well highlight them to you. Another new feature is the Timeline Bar Labels and Task Progress. So this is a really good one as well. So our Timeline Bars, which we're going to build up as we go through, can now be labeled. So, it makes them a little bit more meaningful, because you can have the name of the task and also the task progress shown right on the task themselves. So it makes it very quick to illustrate your plan, and the work in progress when sharing status.

And of course, there's always improvements made to Accessibility with each new release of Microsoft Office. So in 2019, it's now a lot easier for Windows Narrator and other assistive technology to read more elements of Project, which is always an excellent feature to have for anybody who has impairments in that area. And then you'll see at the bottom of that page, we have some basic tutorials for adding tasks in project and also a Project Quick Start guide. So as you can see, not too many changes in there, but the ones that they have made are very useful and very important.

The other thing that I think is always really helpful when you're going into a new version of a piece of software is to have a look on the Microsoft site at some of the blogs related to Project. And there's so many of them down here. But those can also be really helpful and provide you with extra information when it comes to putting together your Project. So I would definitely check out the blog sites within microsoft.com. And that's it really, short and sweet with regards

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to changes. That's what's new in Project 2019. In the next section, we're actually going to get started on a project so please join me for that.

## Section 2 – Workspace

### Video: The Project 2019 Workspace

**Deborah:** Hello again and welcome back to our course on Project 2019. In this section, I'm going to take you on a tour of the Project Workspace. And we're also going to start creating a very simple project. And I'll use that very simple project to demonstrate key points concerning the Project Workspace.

Now, you've already seen this Start screen, and you'll probably see this quite a few times during the course. Although as you'll see a little bit later on, you may want to disable the Start screen once you really get used to using Project 2019. You might decide that you can get along perfectly well without it. Now let me give you a quick tour of the Start screen itself. Over on the left, we have an area which gives us links to existing projects. We have a Recent Section just there at the top and currently for me this section is empty. Once we start working on projects, you'll start to see a list of recent projects appear just there. And then below that there is a link to open other projects, which gives us access to a Windows browse dialog. So, you can browse your computer, you can browse any network locations you have access to, and you can browse cloud areas such as your OneDrive storage.

Now we're going to start with a New Project. So we won't be using that part of the Start screen on this occasion. In the top right, we have some standard Windows buttons, the little question mark is Help. Note the ScreenTip there, for Help F1 is the keyboard shortcut. Then we have the Minimize, and we have the Maximize or Restore depending on whether your screen is currently maximized or not. And then we also have a Close Button. Below that we have my name and the account under which I'm currently running Project 2019. If you're the only person that uses this PC, and if you're the only person that uses Project on this PC, and you only have one account that you ever run Project under, then this will always indicate that account.

But if for example, you sometimes use a work account, and sometimes a personal account, if you share this PC with somebody else, you may want to switch between accounts. And, you have a Facility just here to switch accounts. I'll demonstrate that few a little bit more fully later on. Now, let me talk about the rest of the Start screen. And I'm going to say this once more, you may not see exactly the same as me, it will depend on a number of things. But almost certainly the first thing you'll see here is a Blank Project thumbnail. I'm going to click on that in a little while and we're going to create a new blank project. So essentially blank project is the starting point for a new Project. Let's run through some of these others First of all though.

If you're on Projects that have an element of similarity, maybe you do building projects marketing projects, then you may already have a Project that you'd like to base a new one on. And the second thumbnail here, New from Existing Project enables you to use an existing project as a starting point for a new one. The third thumbnail, New from an Excel Workbook, lets you create a project from an Excel workbook. And what this basically means is that you have perhaps

a list of tasks on a worksheet in an Excel workbook, and you want to make a list of tasks the starting point for a project. The fourth thumbnail New from SharePoint task list is a pretty similar kind of thing, but in relation to SharePoint. So if you have a list of tasks in Microsoft SharePoint, and you want to use those as the basis for a project, you can use that option.

Now the other thumbnails all correspond to different standard Project templates. So if I were working on a software development project, I could use the first template there; Software Development Plan. And it would get me started on a typical set of tasks as a starting point for a software development project. Now, you'll see a whole list of these templates, these templates you may think of in the old terminology as boilerplates. But nowadays, we generally call them templates. And there are lots and lots of them there. So Residential Construction is there For example, New Business Plan is another one. But there are available online many, many templates that you can base new projects on. And there is a Search Facility at the top here. So if you wanted a project plan for a particular thing, you could do a search here.

In fact, there are some standard searches, Suggested Searches as they call them underneath. So we have Projects, Schedules, Themes, Analysis, so on and so forth. Let's suppose and this is definitely potentially going to be very useful. I wanted to look for a project plan for a wedding, so let me do a search on a wedding. This, of course, is an online facility, so I need to be connected to the internet. And let's click the magnifying glass. And it comes up with a wedding planner. If I were to click on that wedding planner, then I would see a little bit more detail about what this wedding planner is. So it shows me the first few tasks, it gives me a description. It says wedding planner provided by Microsoft Corporation, it tells me how big it is, and it gives me a little bit of a description about the wedding planner. And then I could use that to create a wedding plan.

And in fact, it's not very far removed from what I'm going to be doing a little bit later on. But let me just close that for the moment and go back to this screen. Because, apart from given me potential project templates for a wedding, there are search results from other office applications. Let's look at PowerPoint For instance. There are three items found in relation to PowerPoints. Now, each of these is a template for a PowerPoint presentation. So there's a picture frame wedding photo album, a wedding seating arrangement plan, and also a simple wedding photo album. Now there are other suitable wedding related artifacts that can be used in Word, Publisher, and Excel. So we're not really going to cover that on this course. But they can be very useful links to other artifacts that you can use with the other components of office. Having taken a look at that, let's go back to the start screen and we just use the back button up here. And we're going to create a blank project.

Now as soon as I do this, I want you to look at the bottom left hand corner of the screen because a little message will pop up just for a few seconds that you'll get used to seeing and after a while, you'll probably just ignore it. But I need to explain it to you briefly now and then in a little bit more detail later on. So click on Blank Project and then look down immediately in the bottom left hand corner. And you'll see a message that says, "New tasks are created in Manually Scheduled mode". As you'll see later on, there are two modes of scheduling. There's Manually Scheduled and there's Auto Scheduled.

Most of the time, I tend to work in Auto Scheduled mode. And after you've been using Project for a while you will choose the mode which you prefer. The fact that I currently have this in Manually Scheduled mode and you may or may not have it in Manually Scheduled mode really doesn't matter at the moment. We'll come back to that a little bit later on. What we need to concentrate on here is the workspace overall. So first of all, in the top left hand corner, you have the Quick Access Toolbar that I mentioned earlier on in the course. You may not see quite the same buttons as me there but we'll come back to that in a couple of sections time. And in the top right hand corner, you have some Standard Windows buttons. Let me just hover over those. So you have Minimize, Restore Down, and also a Close Button.

The main ribbon is this so it's the big block right across the screen very near the top. I'm going to explain the ribbon to you in quite a bit of detail again in a couple of sections from now. Above the ribbon in the middle is the name of the current project, we've just created a project. So by default, it's called Project 1. If we create another one, by default, it will be called Project 2 and so on. Now below the ribbon, we have something called the Entry Bar. And the Entry Bar is something that we can use to enter and edit data into our project. You may or may not have the Entry Bar shown. If you don't see that then don't worry, I'm going to show you in a while how to show that if it isn't already shown.

Basically, the kind of thing we use the Entry Bar for is this. If I want to enter the name of the first task in my project, I can click on the task Name Field there. And then if I click in the Entry Bar, I could call it Task 1. Having typed that, I can click on the tick mark to the left of the task. And that will become my first task. If I click down to the next row, and maybe I intend to type Task 2, I could type Task 2 change my mind and click on the cross to the left of the task Entry Bar. And that will cancel whatever I'm typing. So that's the Entry Bar, more on that later. Below the Entry Bar. We have the Timeline. I mentioned the Timeline much earlier on when I was talking about what's new and the fact that you can have several timelines now in Project 2019. You may or may not see the timeline.

If you don't see it, you can show it by going up to the ribbon, and clicking on view. And roughly in the middle, or just to the right of the middle, you see command there or a checkbox that says Timeline. If I uncheck Timeline, you can see the timeline disappears, check it again, and it comes back again. So that's the timeline. When I've got some tasks, it will show those tasks on the timeline. Now, in fact, I've just entered one task there, it hasn't got any work in it, and the timeline can be set to run over a period of time. Now by default, my new project is starting today. So that's March the fourth. And because I haven't got any tasks or work scheduled at the moment, you'll see on the right hand side of the timeline, it also says March the fourth.

So currently, it's not the most exciting project in the world. Below the timeline is the Main Project Window. And by default, on my installation, I show a Gantt Charts. And a Gantt Chart actually comprises two parts. It comprises the list of tasks, it's actually a table. And we refer to this as the table. And on the right we have the chart itself, which is normally a pictorial representation of the tasks in my project. Now, you may or may not have a Gantt Chart shown. If you don't have a Gantt Chart shown, you will find out soon how to show a Gantt Chart there.

And there will be situations when you'll want to see one of the many other types of charts that you can show in the main body of the display there in the main window.

Now just to give you a little bit more of an idea of how that's going to look, let's go back to that first task, Task 1. I'm going to click in the duration column. And I'm going to say that this is a two day task. Click elsewhere. And there is my Gantt bar for a two day task. Now there are various things about that bar in terms of its color, its ends and so on, they each have significance. And we're going to talk more about those later on. But basically, as we start to build up a schedule, we build up entries in the table on the left, and each of those will be represented by a Gantt bar or other appropriate symbol in the charts on the right. The next aspect of the workspace to look at is the Status Bar across the bottom of the project window. At the left hand end, there are optional pieces of information.

One of the ones that's shown there is New Tasks are Manually Scheduled, which I mentioned earlier on in this section. And at the right hand end, there are controls for the views. So we can do things like choose the view of the project we currently have. And we can also use the Zoom controls. And again, more on those later. And the last part of the workspace that I want to look at is what's called the Backstage or Backstage View. Now what we're looking at here is effectively a project. It's a very simple project with one task in it at the moment. But this is where we work on the contents of our project. The administration of projects, so doing everything from saving them to printing them to maybe sharing them, that's all done in what's called the Backstage View or just Backstage. And if I go into Backstage View, and you can do that by clicking on File, you'll see that Backstage View has a load of options.

So we have Info, New, Open, Save, Save As, Print, Share, Export, Close, Account, Feedback, and Options. And we'll be dipping in and out of here as we go through the course. It's also for example in the Backstage View where we can set up project information. When I've been using Backstage View, I get back to my project again by using that Back Button in the top left hand corner. And that takes me back to my project. So there we are. That's sort of the basics of the workspace for now. In the next section, I want to take a quick look at Help so please join me for that.

## Video: Help

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, I'm going to look at Help. And for those of you who have used project before, Help in Project 2019 is a little bit different in terms of how it works. And in line with virtually all other modern major software products, you're very much restricted on Help if you're not online. So I'm going to demonstrate Help offline in a little while, but let's start with online. And let's start with how you access Help.

Now, as I pointed out earlier on in the course, if you see this little question mark icon up here, it's a Help link. And you can either click on Help, or you can use the F1 keyboard shortcut. In fact in Project 2019, it's probably a better idea to get used to using the F1 keyboard shortcut, because quite often, you don't see the question mark icon. But let me click on the icon now anyway. And that takes me to a new browser and to the Help homepage. Now the options you have here may differ to mine, depending on what browser you're using. So for the record, I'm using Chrome. The Help homepage has a list of what it calls the Top Categories. Each item in the list is expandable. So get started for instance, if I click on that, it gives me a number of options. So I've got basic tasks in project, create a new project, schedule, etc. You can choose one of those. So let's say basic tasks in a project. And it will take me to either the Help page or in this case through to another menu from which I can select further options.

Having arrived at this page, there may well be links to other Help pages. And the Help is basically browser based. So I can use my browser buttons to go back just by clicking the back arrow. And if we just go forward again, by clicking the go forward button, I could use the links at the top here to navigate. So if I want to get back to Get Started, I think click on the Get Started link to take me back to that page. So that's back to the homepage with the top categories listed again. And whichever topic I'm on, I have the option to print the topic using the Print Facility within the browser. So let's click the three dots in the top corner there. And I can print any of these pages using the print button. And very importantly within the Help system, there is a Search Facility.

So maybe you want to know how to for example, enable or disable the Entry Bar. So type in Entry Bar and press Enter. And you'll see a list of topics related to the search term. It's worth noting that this search within Office Help will search across all applications for the search term, not just Microsoft Project so watch out for that one. Incidentally, in this particular case, you might like to just note this second entry here. So under the heading keyboard shortcuts for project, you'll see there it says activate the Entry Bar to edit text in a field. And then it says F2. So F2 is the toggle, to turn off and on that Entry Bar. So if you don't currently see it in your version of Project 2019, just hit the F2 key and that will bring that Entry Bar up.

Now let's quickly go back to Home. So I'm just going to click the back button on my browser. Now I'm not going to go through these Help topics now. But I suggest that with Get Started, you make a point of going through some of these basic topics. Obviously, I'm going to cover these topics during the course. And in most cases I'll be covering things in much more detail than the



Help does. But it's always a good idea to get a different view on these topics. And of course, to get the official Microsoft view. So, do try to find some time to go through these Help topics perhaps going through them as we cover them on the course.

Now when we finished using Help, all we need to do is close the browser tab. So I could click the little cross in the top corner of the tab. Alternatively, if I just want to close the whole browser down, I can use the cross in the right hand corner. Now there are some situations where you can access Help in different ways. So far, we've looked at accessing Help by clicking on the question mark button, which takes you to the external Microsoft Help website. But, you can also access Help from within the Project window also. So let's create a new blank project. And I'm going to press the F1 key. And what happens here is that a pane opens up on the right hand side of the screen. And the options look fairly similar to what we saw in the web browser version of Help.

So from here, we can browse the categories. So Get Started, for example, and I have access to all of my health information this way as well. We could also use the search facility at the top. So if I click in the search bar, and let's search for Entry Bar again, and click the magnifying glass. And this time, we get links to Help that are all related to Microsoft Project only, it doesn't search for the term across all Microsoft applications. So essentially, this is a much more targeted search than the previous option. And of course, if I click these three dots, I get some other further options, including one that will jump me back to Home.

Now a couple of other things to tell you about. One of them is what happens if you're not connected to the internet. So let me just show you that. I'm going to disconnect from the internet so now I no longer have an internet connection. I'm going to press the F1 key, and you'll see that I get a message that says; "sorry, something went wrong, please check your network connection and try again". In previous versions of Project, there was something different there. And I think it provided you with a little bit further Help with regards to finding items on the ribbon. But at the time of recording this, if you're offline in 2019, you don't get any Help at all. So the last thing I want to show you about Help is the new feature, "tell me what you want to do". And this was a feature that was introduced in Project 2016. And it continues through to project 2019.

This, as I understand will improve and become more comprehensive over time. We're very much dealing with a reasonably early version of this feature so let me just give you a quick demonstration of it. So let's suppose there's something that you want to do, and you don't remember where the command is that does it. So perhaps you're not quite sure how you should go about doing it. Let's suppose that you want to set a Baseline. Now setting a baseline, it may mean nothing to you at all at this moment. But let me just click in that box, and type set baseline. Now as I do that, it recognizes all or parts of what I'm typing. So it gives me some options; Set Baseline, Show Baseline, Set Reminder, Show Slippage, so on and so forth. As I do that, I may say to myself, ah, set baseline, that's what I want to do. And then there's a little pop up menu, which says set baseline or clear baseline.

Now if that's exactly what I want to do, if I click on that option, it brings up the relevant dialog box. And if I know how to use that dialog, I can actually go ahead and do it and set my baseline. And of course, there is a Help link there as well at the bottom of that dialog box. Note that with



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some of these Help links, they have a button with the word Help in rather than just a question mark. So just be aware of that as well. And in this case, though, if I click on this Help button, it's contextual. So some of them are and some of them aren't, most of them aren't unfortunately. Let's close that browser and go back to where we were before. So that's the new, "Tell me what you want to do feature" or "tell me features" as it's sometimes known, that was introduced in Project 2016 and continues through to project 2019.

As it evolves, I think it could become a really useful feature. I think we're still kind of at the fairly early stages of it with Project 2019 but please give it a try. That's it on Help. I will see you in the next section.

## Video: Ribbon and Toolbars

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to look at the Ribbon and Toolbars. If you've used other Microsoft software that uses the Ribbon and Toolbars, it's probably the case that you can skip this section if you want to. I'll talk about one or two things that are quite specific to Microsoft Project. But I think that if you're an experienced user of the Ribbon, you'll be able to pick these up easily enough as we go along anyway.

Now for those of you who aren't so familiar with the Ribbon, let me just explain. The Ribbon System was introduced about 10 years ago now, and it's fairly consistent and has been implemented across all of the Microsoft applications. As I pointed out already, it's this rectangle with a number of tabs, and you select a tab. So for instance, at the moment, I have the Report tab selected, you select a tab by clicking on the name. So this is the Task tab, we have the Resource tab, Report tab, Project tab, so on and so forth. And you'll see these tabs whenever you're using project. Now this can be changed by local settings but talking in general terms here.

However, there are some tabs that only appear in certain situations. And these are what we call Contextual tabs. We have a contextual tab here at the moment, and it's the Format tab. And the Format tab in this case is part of what's called the Gantt Chart Tools. And this is contextual in that because we have a Gantt Chart shown here, so that's this area on the right, remember, we have a Gantt Chart Tools tab that enables us to do things like change the format of the Gantt Charts and other tasks. If I change the view, so instead of showing the Gantt Charts, I'm going to show for example a let's go for Network Diagram. I now have a Network Diagram view. And I get a contextual tab for that. And you can see there we have, again, a format tab, which is part of the network diagram tools.

We'll see some other contextual tabs as we go through the course. But let me for the moment go back into Gantt Chart View. On each of the tabs, there are a number of controls. And the controls can be all sorts of things. They can be command buttons, they can be drop down lists, they can be sets of radio buttons, etc. And they're arranged into groups. So for instance, on the View tab here, the group on the left is the Task Views group. And there are five controls here, Gantt Chart, Task Usage, and these other three. Each of these controls can be a single control, or for instance, as in here, it can give us access to a whole menu of items. Now I should point out something here that I did point out earlier on. And that is that depending on the size of your screen, depending on the resolution of your screen, and depending on whether you're in mouse mode, or touch mode determines exactly what you'll see on each tab.

So, yours may vary depending on what settings you have implemented. You may see more or less controls in each group than I do on my screen. And I'm recording this course on a PC with quite a high resolution. If you have a smaller resolution PC, perhaps running it on a laptop with much less space on the screen, again, you may well see less than me. But you should pretty much see the same groups, even if exactly what you can see in each group is a little bit different from what I see. So let's now try to execute a command or two.

I'm going to go to the task tab and one thing you'll notice is that some of the commands are grayed out. So for instance, in the clipboard group on the task tab, you have a Cut command, a Copy command, and something called a Format Painter that are not grayed out. So you could do all of those things at this moment. Whereas you can't use the Paste command. It's grayed out because we don't have anything copied to the clipboard. And as with Windows applications, in general, of course graying out indicates that a particular command is not available at the current time. Let me type a name of a task into this task Name box for the first task in this little project. I could use the tick next to the Task Entry Bar, or I could just press the Enter key. So I'm going to use the tick like so.

Now if I select that particular task name as I have here, you can see that the box has a border around it. So, I know that it's selected. If I wanted to make that bold, I could use the Bold Command in the Font group in the task tab. I could make it Italic. And I could change the font from Calibri. To say, Bedoni MT Black. I can also toggle these options off. So if I click italic, again, it will take me back to just bold. I could also make this font a larger size if I wanted to by clicking the font size drop down and selecting a larger size. So that's basically how you can use the commands on the ribbon. Now we're not just restricted to styling text. If you take that particular task, you could do all sorts of things to it.

For instance, you could record progress on that task using the commands on the ribbon. But more of that later. Now slightly at the danger of getting ahead of ourselves here, one thing you'll notice, particularly as your project gets bigger, is that the ribbon does take up quite a lot of space. And in particular, if you're using a small screen, it takes up a disproportionately large amount of space. Now you can hide the ribbon, and there's a little arrow up here over on the right hand end. And if you hover over it, it says collapse the ribbon and you can see the keyboard shortcut for that is Ctrl F1. If we click collapse the ribbon, the ribbon is hidden.

Now you may well say well, that certainly gives me a little bit more space. But how do I use the commands? The answer to that is that provided you've got reasonable idea of where the command is. So for instance, if I wanted to change the size of that Task 1 font back to 10, or 11 points, if I know the commands on the task tab, all I have to do is go back to the task tab, click on the name and the ribbon reappears. So if I say okay, then it's currently 18, I want to put it back to 11, I can very easily do that. Once I finished making my changes, if I click back on the project, you'll see that the ribbon is hidden again.

Now when I describe that to you, I said that if you know where a particular command is on the task tab. If you don't know where it is, you can still click on any one of the tabs. And you can pretty much click around to find the tasks that you want. Click off again on the main project window, and you'll see that those ribbons disappear again. If you get to a point though, which you think well actually, I need the ribbon available all the time Again, I don't just want it collapsed anymore, if I just click on a tab to bring the ribbon back, and right click my mouse over on the right hand side but still in that ribbon area, you'll notice the collapse the ribbon is currently ticked. So just click to untick and the ribbon will be there all of the time. And now you can see the contents of each of the ribbons.

One thing I'd like to point out here is that you can customize the ribbon and in particular, you can create your own Ribbon tabs. Now, I'm not going to cover customization of the ribbon here. But I am going to briefly look at customizing the Quick Access Toolbar a little bit later on in this section. And that should give you a pretty clear idea of how to set about customizing the ribbon. So now let's turn our attention to that Quick Access Toolbar that we looked at earlier on in the course. And as you can see here, mine has about four commands already shown. One of them that we talked about was the Touch Mouse Mode Command. Then we have Undo and Redo and also Save. But as I explained earlier on, if you want to change what's shown on the Quick Access Toolbar, there is a standard pool of commands. So if I wanted the Quick Print Command shown, I'd select Quick Print from the menu here. So if I click it, you'll see that the Quick Print button now shows in my Quick Access Toolbar.

Now apart from switching on and off those standard commands, you can customize the Quick Access Toolbar further. And if I click on More Commands, it takes me to a page of the Project Options. Now Project Options we're going to look at in two or three sections from now. But what we have open here is the Quick Access Toolbar page, which we can use to customize that Quick Access Toolbar. And let's suppose that I want to add a button to the toolbar which will enable me with one click to make something bold. What I need to do is to find the bold command in the list on the left and then add it to the toolbar. Now the list on the left is controlled by this drop down menu. And first of all, we have the Popular Commands, they're in alphabetical order. Now I can't see bold there. So if instead of Popular Commands, I say All Commands, and again, these are listed in alphabetical order. And now I have access to the literally hundreds of commands that are available in Microsoft Project. And I want to find bold, so let's scroll down and go to the B section. And there it is.

So now I'm going to click the Add button. And what that will do is move the Bold Command from the list on the left hand side across to the list on the right hand side. And what this list on the right hand side shows are all of the commands that are currently on my Quick Access Toolbar. If I want to put it in a different position, I can select it and use the up and down arrows at the side here to reorder my commands. So I'm happy with it just there. If I click on the OK button, you'll see that my Bold Command has now been added to my Quick Access Toolbar. Now let's just jump back into those Project Options again. Because there's one other important point to mention here. If at some stage, you make a mistake, and you want to go back to the default, or the settings that were originally used, there is a Reset button at the bottom there. I'm actually happy with how I have it. So I'm going to click on OK again.

And now I have my Bold Button which I can use and I can choose to toggle that off and on. It may well be that after you've been using Project 2019 for a while, you'll find it very useful to customize that Quick Access Toolbar. Also, some people customize it to do a particular job. So for example, if a project manager is doing a weekly update of status, he may put various commands associated with task status on the Quick Access Toolbar, or indeed create a custom tab for the ribbon for that particular purpose. One other thing about the Quick Access Toolbar that some people find useful, it's right up in the top left hand corner there and you have to sort of go across the ribbon to get to it. You can actually position it below the ribbon, it's very simple,

just click the drop down. And you have the option Show Below the Ribbon. And you can see it's moved down to underneath the ribbon. And that makes it quite a bit easier to get to when you're doing perhaps a long or repetitive tasks within the body of a project.

And of course, if you wanted to put it back up to the very top left hand corner, you could essentially do the opposite by clicking the drop down and selecting Show Above the Ribbon. Now there's one other type of toolbar that I want to point out to you now. And it's one that pops up all over the place. We're going to be using this type of toolbar in many places in this course. If you take Task 1 here, for example, and select it, if I right click, I get what's called a Contextual Menu. And it's contextual in that the commands that are available there, although they're also available from various places on the ribbon, these are deemed to be the ones that you're most likely to want to use in the situation that you're in.

And above the Contextual Menu, there is a Mini Toolbar. And again, this is deemed to be contextual, to contain the commands that are appropriate to where you are in Project and what you're doing. So these work pretty much on the principle that I'm sure you'd expect them to. You click on things and they either execute commands or bring up other menus or bring up dialogs. So we have these Contextual Menus like this one, and then we have the Mini Toolbar as well. And as I say, we'll be using these at various points during the course. That's the end of this section. I will see you in the next one.

## Video: Status Bar

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, I'd like to take a quick look at the Status Bar. Now I'm going to deal with it in two parts, the left part and the right parts. But importantly, if you right click anywhere on the Status Bar, you'll see a list of potential contents. And whatever is ticked is currently shown, note the head of their customized Status Bar.

Now, you might be surprised to see so many texts, but actually not very much information on the Status Bar at all. And the reason for this is that apart from the bottom two entries, few shortcuts and zoom slider, which are the things that are shown at the right hand end of the Status Bar, the things on the left correspond to optional pieces of information you can show, but which very often don't show anything at all. So for example, if you look at the item fourth down in the list there, Filter, it's ticked. And what that means is that if a filter is being applied to the current view, show the name of the filter there.

Now in this case, no filter is being applied, and therefore you don't see anything. So with quite a few of these items, even though they're ticked, most of the time, you won't see anything unless you're using that particular feature. Now there are a couple of things shown at the left hand end, one of them is ready, which is the Cell Mode. If I click Cell Mode, so that it's not shown, you'll see the effect it no longer says ready, because I'm not showing the Cell Mode. The other thing that's shown is whether new tasks are Manually Scheduled or Auto Scheduled. If I click New Tasks, it will no longer show that currently they're Manually Scheduled by default. Now the other items, although they're ticked there's nothing to see. One of them that isn't ticked is this one, which is the Macro Recording Indicator. We're currently not recording a macro, and a macro is a sequence of steps that we can replay automatically.

If I check that, you'll see the little icon that indicates that we're not recording. If I start recording a macro and left this checked, then you would see a different icon whilst we're recording. And in fact, that icon would give your way of stopping the recording also. We're not going to be covering macro recording anytime soon. So let's check that back off. Let's now concentrate on the right hand ended the Status Bar. Now we're going to look at the bottom two options there. And the first one is View Shortcuts. This corresponds to this set of buttons that I can use to enable different views of my project. So let me just click away there.

I currently have Gantt Chart View. If I go to this one, that's Task Usage View. The next one is Team Planner View, we have Resource Sheet View, and finally Report View. I'll be covering all of these later on in the course. And the fact that the second to bottom option is ticked means that those buttons are there to enable me to easily switch between those views. As an alternative to those I can select the View I want from the View tab on the ribbon. And in fact, there are many more options on the View tab on the ribbon.

At the very bottom option is Zoom Slider. And this gives me access to the control that I can use to zoom in and out of the current view, which is this slider over here. So let me click out again

and go to the slider. And this basically zooms by time. So as I zoom out, I get a broader view of time.

So now you can see that I'm looking at quarters. If I zoom in by clicking the plus button there, I'm down to months, then weeks, then eventually I get down to individual days. It is quite a course control but I can use that if I want to. Or on the View tab in the ribbon, there is a zoom group and that lets me be much more accurate and much more flexible about how much I'm zoomed in on the current view. So that's it. That's the Status Bar. Please join me in the next section.

## Section 3 – Project Options

### Video: Overview of Project Options

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to take a look at Project Options. And to a large extent Project Options represent your own personalization of your installation of Project and in the way that you use Project on your projects. Some of these options you need to have set correctly before you start to create and work on any kind of substantial project. And in fact, as we're going to get started on our exercise project in the next section, it's very important that you go through this one carefully.

Even if you've used Microsoft Project before, I suggest that you follow this section through because I'm going to make sure that we cover all of the essential options so that when you start working on the exercise, you won't finish up having to sort of go back and redo things later on. So to access Project Options the normal way is to go into the Backstage View. So we'll click File, and right at the bottom, we have Options. And that brings up the Project Options dialog. Now, you've seen this already, because there are various points where you get taken to this dialog, often to a specific page on this dialog. And you're given the opportunity there to change something or set something. So you may well recall that when we were looking at the Quick Access Toolbar, for example, we went to this Quick Access Toolbar page and used the controls on this page to add a button to the Quick Access toolbar, that Bold Button.

In fact, I think I'm going to while I'm here, remove that Bold Button now. So, I'll select it and click on the Remove button in the middle. And I'm also going to remove the Quick Print button as well. Now what we're going to do in this section is go systematically through these pages, and look at the options that we need to get set straightaway. Now in order to demonstrate the way that many of the options work, I'm going to do a quick demo in relation to what's called ScreenTip Style. The very top entry on the first page, the General page, underneath user interface options, we have ScreenTip Style. And it currently says, "show feature descriptions in ScreenTips". If I click the drop down here, there are three options; Show Feature descriptions in ScreenTips, Don't show feature descriptions in ScreenTips, and Don't show ScreenTips.

Now at the moment with the first option selected, if I just click on Ok, if I hover over one of the buttons on the ribbon, so let's say if I hover over Move, you'll see that I get that ScreenTip there for Move Task. And you can see that it's telling me that it moves the selected tasks forward or back in the Project Schedule. Now let me go back into Options. And let me change that to don't show feature descriptions in ScreenTips. Click on OK. And let me hover over move again. And now what I get is Move Task. So that's the name of the command, but not a description of what it does. Let's go back into options once more. And obviously, if I choose the third option here, don't show ScreenTips and click on OK. And once again, hover over move, you'll see that I don't get anything.



Now I personally like to have the description there. So I'm going to put that back to what it was originally from options. And we'll just set that back to show feature descriptions in ScreenTips. Now let's look at some of the other key ones on this general page. The default view for me is Gantt with Timeline. I pointed that out to you a couple of times. That's the default view when I open up Project in particular, when I start working on a new project, that's what I see. And I can also choose here my default Date Format, which is the short form of the day of the week. And then the month, day and year. And if you prefer there are various other date formats that you can choose from that drop down list. My user name is also here with my initials.

Now you may think well, what difference does that make? Well, if you're collaborating with other people on projects, and if you're sharing projects and so on, you may do many things For example, comments on projects. You may make certain other changes to projects which are identified as being by you. And having your username and initial set correctly here enables other people to track that it was you that made that change or made that comment. Now, if you remember right back to near the beginning of the course, I talked about the fact that one of the new features in Project 2019 was the availability of some Alternative Office Themes. And down here is where you can choose them. So if we click the drop down in Office Theme, you can see we have colorful, dark gray, black, and white.

Now, I've currently got colorful selected, which is my personal preference. But if I selected for example, say dark grey, and clicked on Ok, you can immediately see the effect there. And I think if I was to select this one, it might make it a bit harder for you to see these videos. So, I'm just going to go back and I'm going to change that back to colorful. And something else that I mentioned earlier on in the course is that you can suppress the showing of the Start screen just with that checkbox at the bottom. If I uncheck that, click on OK to save the change, next time I start project, I won't see the Start screen. Again, that's something for you to try out, see if you're happier with that arrangement.

Just incidentally, while we're talking about these changes that we're making, it's worth pointing out that most changes you make in Project Options are activated when you click Ok to close that Project Options dialog. There are a small number of changes where you do need to restart Project for them to take effect. But when it is necessary to restart Project, it does actually tell you that you need to restart Project for the change to take effect. The next page I want to look at is the Display Page. And there are two important options here that I want to highlight. First of all, for each project that you work on, you can set the Currency Options. At the moment, we only have Project 1 here. And the drop down lets me choose from any available projects. So there's only Project 1 currently. And I can set a symbol, the decimal digits, the currency, and so on.

And the second option on this page, again, going back to something that I mentioned earlier on, if I don't see the Entry Bar, it's probably because this option down here for Entry Bar is unchecked. So make sure that's checked. And you'll see the Entry Bar between the Ribbon and the Timeline. Now the next page is the Schedule page. And there are a couple of very important settings here, which I'm afraid I'm going to have to ask you to set based on trusting what I'm telling you at the moment. I'm going to explain these settings to you a little bit later on in the course. But at the outset, I'd like you to have them set in a particular way. Now there are some

very straightforward settings on this page. So for instance, the week starts on a Sunday, and the fiscal year starts in January.

Now you may be tempted to do things like change the default start time and end time for working days, where you work hours per day, hours per week, etc. By all means set those if you want to. I will be talking about those and calendars in general in a bit of detail later on. At this stage, it's not really that important that you get them quite right at the moment. Two settings I do want you to set in a particular way, though, are these first of all, new task created Manually Scheduled. Now I've mentioned that before. I've currently got new tasks created Manually Scheduled, I want you to set that to the other option, Auto Scheduled. And it's very likely that for most of you, this will be the way to leave this setting set in the longer term. And what this basically means is that when you create a task in a project, it becomes Auto Scheduled, which means that as you schedule the project or in many cases as Project 2019 schedules the project, this one is automatically scheduled according to all of the constraints, dependencies, resource availability, and all the other factors that come in to force this task to be scheduled accordingly.

If you leave this setup Manually Scheduled for new tasks, then each task that's created is Manually Scheduled. And each task that you create either has to be individually changed auto schedule, or you have to manually schedule each tasks. There may be situations in which Manually Scheduled tasks is what you want, and I'll talk about that later on. But for the moment, I want you to make sure that's set at Auto Scheduled. The other setting that I want you to make sure it's set in a particular way is down here, where it says Calculation. So we have, "calculate project after each edit", on or off. Now I'd like you to make sure that this is set to on, which means that each time we make a change to the schedule, Project 2019 will automatically calculate the effects of that change without you having to take a separate calculation stop.

Now, I'll explain more of the significance of that setting later on in the course as well. But basically, for the moment, just bear in mind that Project 2019 has to do a lot, particularly in a large project, to work out how to schedule things. And each time you make a change, you really need to see the effects that changes had potentially on a whole parts of the project. And if you don't have that set on, you have to separately and as a manual exercise, tell Project 2019 to calculate the project or i.e. to reschedule it. So for the moment, I'd like you to set that to on as well. And as I say, with both of those settings, we'll look at those in more detail later. The next page is the Proofing page. And that relates to Spell Checking and Auto Correction as you're typing. I'm not going to go through that at this stage. But if you've used the proofing facilities in other components of Microsoft Office, such as Microsoft Word, I'm sure you'll be able to go through there and make the appropriate settings correct for you.

Now we come to the Save page. And there are a couple of very important settings here. One of them is the Default File Location. And this is the location where any project files that you save will be saved by default. It's set when you install Project 2019 to one of the folders within your personal windows directory. You may want to leave it set there or you may want to save your project files by default somewhere else that is entirely your decision. So mine is currently set to "save in the default location". The next option is the Auto saved option. And again, if you've used other components of Microsoft Office, you might be tempted to switch auto save on and

that will cause Project 2019 to save your work at regular intervals according to the number of minutes selected in this box just here.

Now, you may well be tempted to switch that on. But I don't and there is a good reason for that. Unlike other components of Microsoft Office, if you have Auto saved switched on each time Auto saved occurs, it clears your undo history. So once an Auto saved happens, you cannot then undo. Now for some people, they're quite happy to work on that principle. Perhaps they don't use undo very much or perhaps they're very careful. You can in fact use this option for a prompt to warn you when an Auto saved is about to happen. But in my case, I prefer to leave Auto saved switched off. But again, ultimately, this is your choice. The next page also has some very important settings. And this page determines the language that you're using to work in Microsoft Project.

Now you can have more than one language installed and you can select different ones for different situations. So you can see here I have English, United States and English United Kingdom as the two languages that I use. They are sufficiently different to warrant being described as two different languages, and my default is set to English United States. If you need to add an additional language, it is very straightforward. There is a drop down just here, which gives you access too many, many, many more languages. And in particular, with a particular project most people find their default language is the one they use most of the time. But if you do work in more than one language, even if the two languages are two versions of English, you do need to be aware of this language setting. And when you're working on a project, make sure that you have the appropriate language selected.

Now let me quickly run through the remaining pages of Project Options. There are no settings on the Advanced Page that you need to worry about. Now we will be looking at one or two settings from here later on. Customize Ribbon is the equivalent of the customization page for the Quick Access Toolbar and it does look quite similar. The main difference is that rather than say selecting commands from the list on the left, and then adding them to what was the Quick Access Toolbar in the rights, what you would normally do is create your own tab and then copy commands from the left hand list to your groups on your new tab. And then what you could do is build up your own custom tabs on the ribbon. Now I'm not going to cover that now but by all means have a look at the help, give it a try, and see how you get along with it. Don't forget you can always click the Reset button at the bottom there to put things back to how they were if everything goes horribly wrong.

The Quick Access Toolbar page you've already seen, and you've also seen me use it Add-ins are out of scope for this course, And the Trust Center is also out of scope for this course. There is one thing I would like to say about the Trust Center though, in Project 2019, mainly the Trust Center is concerned with the fact that one way that people can get malicious content onto your computer is to get you to run macros and macros can be included within a Microsoft Project File. So one thing you want to do is make sure that you have the macro setting disabled for all macros with notification. So if we go into Trust Center settings, and we just want to check that we have our settings set to disable all macros with notification.

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And then if you open a project file from somebody else, and it says I want to run a macro, if you know who the person is that you've got the project file from, and you absolutely trust the source, you can let the macro run. But if not, you can say Nope, I'm not going to let that macro run. So that's it. That's the basics, the overview of Project Options and we're going to be looking at quite a few others as we go along. Please make sure that you've got set the ones that I said you should have set. That's it for this section. I will see you in the next one.

## Section 4 – Entering Tasks

### Video: Task Basics

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, I'm going to start work on the project plan for a wedding. Now, of course, different people would have very different opinions on what might be part of the arrangements for a wedding.

So, what I'm going to try and do is come up with a project plan for a wedding that has enough detail in it to be reasonably realistic, but which will also reflect the different styles of wedding that you may get in different parts of the world, in different cultures, and so on. Having said that, the style of wedding that I'm planning here is not one that's associated with any particular religion. Now, what you're going to be doing very soon is planning the refit of a bathroom in a domestic house. So what I'm going to try and show you while I'm doing this wedding plan is some of the ideas I want you to incorporate into building up the plan for the bathroom refit. You may well find when you're looking at either of these projects that they don't really reflect how you would set about doing them. But really, that's not the point.

You're learning the tools in Microsoft Project to do these things, you're not actually learning how to either plan a wedding or refit a bathroom. Another important point to make here is that we're building these things up in Layers. I'm not going to go deep into the details straightaway. We will certainly get into the detail. But what we will do is one layer at a time, and I'll explain the tools and techniques associated with Project 2019 as we go. So first of all, I've made a list of the main aspects of this wedding plan. So let's take a look at that first.

Now, I'm sure this isn't going to be quite right But I've made this list. It's actually in the course file folder if you want a copy of this list, and it's Planning, Attire, and by attire, I mean basically the clothes that people are going to wear. But it's probably a little bit broader than that Guests, Venue, Catering, Flowers, Memories, Details, Wedding Day, and Honeymoon. So they're going to be my main headings. And the first thing I'm going to do is to start adding each of those into my project plan. So let's take this first one, Planning and set that one up first. So I've created a new blank project. And in the task name, I'm going to enter Planning.

Now a couple of things to point out here, I'm using Gantt Chart View. I did show you briefly earlier on in the course a couple of ways of switching to Gantt Chart View if you've got no Gantt Chart View on already. One way is to use the buttons down towards the right hand end of the Status Bar, but you can also go into the View tab and select Gantt Chart View there. Another thing to bear in mind is that you should have new tasks set to Auto Scheduled or what I'm going to do next won't work for you. So having entered Planning as the task name, I press the Tab key. And a number of Fields are filled in for my first task and one of them is Duration. And by default, a task has a duration of one day with a question mark normally.

Now what the question mark means is that this is an estimated duration. And what one normally does is to leave the duration as an estimate, until you have actually got a reasonably reliable

duration for that task. Now at this stage, I'm not going to worry about duration at all. I'm just going to get all of those tasks in the list. But bear in mind those question marks are a good way of reminding myself that that's just an estimate of the duration. And believe me when planning a wedding, it's a lot longer than a one day task. Let's ignore the Work column for a moment. And let's take a look at Start. And you can just about see the start date is Tuesday, March 5 2019. Now one thing that may or may not be annoying you already is being able to see the contents of all of these fields. So let's deal with that first.

If you need to make these columns wider or narrower, if you hover over the edge, and you'll see the cursor change to a double headed arrow. If you click the mouse at that point and drag one way or the other, you can make the columns wider or narrower depending on your personal preference. We're going to do a little bit more work on how to format Gantt Charts, how to lay them out more neatly later on. But for the moment, that's probably one of the most important things you need to be able to do just resizing those columns. And also there is a bar, a vertical dividing line between the table on the left and the charts on the right. If you hover over that vertical bar in any way, you get a slightly different double headed arrow. And you can change the divider so that you can see more or less of the table, or more or less of the charts. So again, that's entirely up to you and how you like to work.

Now, let's go back to this start date, Tuesday, March 5 2019. Now, by default, new tasks are either created on the Project Start date, or on the Current date. Now in this case, both the Start and Finish date are the same, they're today's date. And you can check which it's set to by looking at Project Options on the Schedule page. I do suggest you have a quick look at that now. So what is the Project Start date? By default, the Project Start date is the date I created the project. And I created this project today. So that's why we have a start date of today. If you click on the Project tab on the ribbon, and in the Properties group, normally the first button there is Project Information. So let's click on that. And one of the basic pieces of information we have in there is the start date for the project, which is showing here currently highlighted. It will also tell you in this case, what the finish date is as well.

Now, of course, I haven't really got much work scheduled on this project at the moment. So, it means that I can start planning this wedding today. And I can actually have the wedding today as well, because I will be ready. I'm just going to go back to what I was saying now about Project Options. You can see here that we're scheduling from Project Start date, some projects might be scheduled from the Project Finished date. Now it's very conventional to start a project and say to yourself, when will I be ready? But also what often happens is that you know when you've got to be finished by, and what you really need to know is when you should start the project. You can do both of those types of scheduling in Project 2019. But it's very important to know at any time, whether you're scheduling from the Start Date, or to the Finish Date.

The approach we're taking now with planning this wedding is that we're starting at a start date. And when we've done all the planning and got all the other activities in will know when we can be ready by. So we haven't got a date for the wedding yet. We need to do a lot of work to do a lot of planning first, but we will find out when we would be ready to have the wedding by. So let me cancel this dialogue for now. And I'm going to put in a couple more of the tasks into my project.

Okay, so I've got those three tasks in there. Now, you might be slightly surprised by how my plan looks, but there are very good reasons for it.

At the moment, I've not told Project 2019 much about these tasks at all. I haven't for instance said that Attire must happen after Planning, or that Guests must happen after Attire. So it has no reason to put these tasks in any kind of sequence. A very important point as well here is that you don't actually have to enter the task of a project in chronological sequence. I could put all of these in any order that I wanted to. But the convention is that the tasks you expect to at least start first, go first in the list. Now in the left hand column here, you have something called a Task ID. And as you'll see later on in the course, Task IDs fulfill a very important purpose. But one way of looking at this is that generally speaking, the convention is that the task with the lower IDs correspond to the tasks that are performed earliest in the project.

Having said that, as you'll see later on with this wedding plan, the individual elements that make up each of these tasks and bear in mind, we're going to break each of these tasks down as we go through, will overlap some of the things that we thought we're going to be earlier on or will be later on and so on. And in any case, as the project progresses, things will tend to change. So having the earliest tasks as the ones with the lowest ID numbers is more of a sort of general guideline than any sort of specific role.

The next thing I'm going to do is put in the rest of those tasks. And there we are, I have all those headings in. all of them have an estimated duration of one day, which is clearly not the case. But we have a starting point for our plan. And having done that work, the next most important thing to do is save that plan and that's what we're going to do first in the next section. So I will see you then.



## Video: Opening, Saving, and Closing Projects

**Deborah:** Hello there and welcome back to our course on Project 2019. Now in this section, I'm going to take a look at Opening and Closing Projects. And before I do that, the very first thing I'm going to do is save the first version of the wedding plan. And I'm going to talk more about saving in a couple of sections time. But for the moment, I'm going to save this to the Course Files Folder with a very straightforward file name. And then we're going to concentrate on a bit of opening and closing.

So in order to save this project, I go to the Backstage Views into File, and then click on Save As. And what this brings up is the Save As page. And exactly what you see here will really depend on what Save As locations are available to you. So you can see here that I have a few different ones, I could choose to save this file to OneDrive. And you can see I have an OneDrive Business Account there. And also OneDrive Personal Account, I could choose to save it into SharePoint, which is what you can see just here. Or I could choose to save it to this PC. So if I want to save it to a folder on my hard drive that would be my option as well.

Now I'm going to save this file to my PC. So I could click on this PC or I could click on Browse at the bottom. So I'm going to click on Browse. And that will let me choose the location where I want to save this file. So I'm just going to go through and select a folder. And the folder I'm going to choose here is Project 2019 Course Files. Now at the moment, the course Files folder is empty as far as the Save as type that I'm using, which you can see down here is .mpp, which is the default file extension for project files. So all I need to do is go down to file name and give my project a name. So I'm going to call this SSI Wedding 01. And click on Save. Now when I've saved that the phone name appears in the header of the Microsoft Project 2019 windows. So you can see there it says right at the top SSI wedding 01.mpp.

And if I now like to save this or any other project using the approach I've just taken, I can do that. So if I go back to file, and save as, and this time, let's click on this PC, you'll see that I have now listed at the top the last save location. So it's showing me that the last file I saved was into the Project 2019 Course Files Folder. So it makes it very easy for me to access the folder that I've recently saved into. Now there's a couple of important things to note about these sort of lists and locations of lists and files. And that is the more you work with Project 2019, obviously, these lists are going to get longer and longer. And you'll find that save locations and items or start to drop off the bottom of the list.

Now something to anticipate that if you have locations that you save into on a frequent basis and things you want to be able to access quickly, you do have a very useful utility in Project 2019. And that is the ability to be able to pin folders to the top of the list. And you'll see as I hover over the Project 2019 Course Files, if you cast your eyes to the right hand side, you'll see I have a little drawing pin icon. If I click on that drawing pin, that's going to now pin that folder to the top of the list. So no matter how many other save locations, I start to see build up in here, this one is always going to be at the top and you can pin more than one. You can pin up to about 30 I think



it is into the top of this list. So that's also really useful utility for being able to quickly access folders that you use most often.

So in a moment, I'm going to look at some of the options for opening that wedding project again. But before I do, let's go into Project Options. And straight to the advanced page. And I did mention earlier on that we would be looking at some of these advanced options as we go through the course. There won't be time to go through each and every single one of them. You can see there are quite a few in here and some of them I will leave you to go through in your own time. But I would like to point out a few of them as we go. And I do suggest that from time to time you take a browse through these options. It's always good to know what your settings are. And if you need to adjust those settings to enable you to work more efficiently with whatever it is that you're doing.

For example, on the Advanced Page, in the Display group, which is just down here, you'll see this first option; "show the number of recent projects", and it's currently set to 50. So here, you can very easily control how many projects appear in your recent list. And below that option is; "Show the number of unpinned recent folders". And then below that option, you also have an option to; "Quickly access this number of recent projects". So again, you could select however many projects, you want to be able to access quickly from there. And then underneath that, we have; "Show this number of unpinned recent folders". So you have a number of options just here that you can experiment with, to get them to the optimum level for you and the way that you work. So I would definitely check out those options.

I'm fairly happy with how they're set at the moment. So I'm not going to make any changes there. Now, I'm going to click Cancel. And what I'm going to do is I'm going to exit Project all together and kind of pretend it's the next day. And then when I come back and see what happens when I start that project. So let's close down Project and then I'm going to reopen it. Well, when I start a Project again, I can of course see the wedding project in my Recent Projects list. Now I'm not going to open that at the moment, what I'm going to do is start a new blank project. And it might be that as I'm working on my new blank project, I decided that I need to take a look at the wedding project maybe as a quick reference points.

Now I don't actually need to close down this Project that I currently have open, I can have more than one project open at once. So I'm going to go to the File ribbon, and I'm going to select Open. And of course, they're in my recent files is my wedding project. Now again, I might choose to pin this again, if this is something which I reference frequently, it might serve me well to pin this to the top of that list as well. So let's just do that. So now I have my file pinned. And if I click on folders, I also have my project 2019 course Files folder pinned. So you have that option as well, not just with folders, but also with standalone files. So let's open the wedding project, I'm going to double click on it.

So now I have my two projects open. And I can see that if I go down to my Taskbar and just hover over the project icon, I can very easily see the two different project files that I've got open Project 1, and SSI wedding 01. And I can choose to flick between them if I want to. So it makes it very quick and simple to move between any of your project files just by hovering over the

project icon in the Status bar. Now that's one way of cycling through all the projects that you have open. Another way would be to use your Alt and Tab key you may be familiar with that that allows you to cycle through everything that you've got open not just your project files, so you could use Alt and Tab.

And the third and final way that you might want to utilize is actually within Project itself. If I go to the View ribbon at the top, you'll see right in the group at the end the window group, we have a Switch Windows option. And when I click that, you'll see that I then have access to all of the files, the project files, I should say that I currently have open. So again, project one, and SSI wedding 01. And you can see the wedding plan has a little tick against it, because that's the one that I'm currently viewing. So again, this is a nice way of being able to switch quickly between your projects. So any of those three methods are really good utilities to use.

So by now you should have enough tools and techniques to create a project, save it, close it and open it again. And also you should understand how you can work on multiple projects at the same time, and very easily switch back and forth between them. So now it's time for you to do the first course exercise. That's what I'm going to set you in the next section. So please join me for that.

## Video: Exercise 1

**Deborah:** Hello again and welcome back to our course on Project 2019. In this section I'm going to be setting you exercise 1. And, the information that you need to complete Exercise 1 is in the Exercises Folder. And what you're going to need is the txt file, exercise 01 major tasks dot txt, and you can see I've got that file open here in Notepad. And that lists the major tasks, the major headings for the Bathroom Refit that you are going to plan which is very exciting.

So I would like you to use this list and produce a Microsoft Project 2019 project like this one behind. Now note the name that I've given my sample answer at the top here. So we've got Simon SEZ IT Project 2019 Exercise 01.mpp all of the sample answers that I provide will be in that same exercise folder. So make sure that you finish up with something pretty close to what I have here. And I do appreciate that the Start Dates may not be relevant for you at this current time.

So make sure you finish up with something that is pretty close to what I have here. I do appreciate that the Start dates and the Finish date may vary in the examples that you're using, depending on when you're doing this course. So see how you go with Exercise 1. That's it for me for this section. Please join me in the next one.

## Video: Accessing Task Properties

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to look at some other basic properties of tasks. And, I'm just going to go back to that first version of the wedding plan that we were looking at. So the top one here, remember, I've got it pinned to the top of the list makes it super easy to access. And I'm just going to open that by double clicking.

Now, if I look at that first task, the one with the name Planning, and if I click in the Duration Field, the duration as I explained earlier, has a default value of one day, which you can see here, with a little question mark next to it, which indicated that this is an estimated duration. I can of course, use these little scroll bars at the side these little scroll arrows to increase the duration. Or, alternatively, decrease the duration. And you'll see as soon as I do that the question mark is removed. So it's no longer an estimated duration, because I'm inputting something into that duration cell.

Now, I don't have to use these little scroll arrows just here. For instance, if I went into the Attire field, for example, I can literally click in this field, and I can type something in there if I wanted to. So I could type three days, for example. And you'll see that as I type that if you look up into the little bar at the top here, it also inputs three days. And if I'm happy with that, I can click on the tick to accept it like so. And as you can see, as I adapt and adjust the duration of these tasks, the bar in the Gantt Charts on the right extends accordingly. So we now have these two bars showing us three days, and the rest of my plan showing as one day.

Now, we haven't actually looked at the definition of Working Days and Working Weeks and Working Hours as yet. But you can probably see from that, that when I'm talking about, for example, an eight day task, I'm talking about eight working days. And that doesn't include days at the weekend with the current calendar that I'm using on this project. Now look very carefully at the bar charts on the right, because for the tasks that still have a one day estimated duration, you'll see that at the right hand end of each of those, you've got a vertical line, this one just here. Now, it's pretty much coincidence that it's at the right hand end of those bars. That vertical line indicates the Current Dates. So that is essentially what I like to call the Today Line.

So at any point, you can see where you are today in relation to the project, or if you like where the project is in relation to today. And we've talked about the Project Start date. Suppose I was entering this project, and in fact, the various aspects of it had started a couple of weeks ago, I'm a bit late setting this project up in Project 2019. So some of these things may have already happened. What I could do is change the Project Start dates. So look, for example, at that first planning task, which says it starts on March the 14th. So that's the date that I entered it yesterday. And that is currently the start date for this project. So let's go into Project Information, which you'll find up here on the Project ribbon, and down into Project Information. So let's go in and change this start date to a date two weeks ago. And you see I have my little calendar here.

So I'm going to select from Friday, the first of March, and then click on OK. Now none of the durations have changed. But each of the tasks has an updated start date. Now of course I could

change the individual tasks start dates. So for instance, if I wanted to change the date that the attire task is starting. And if I decide that attire is something we maybe need to think about a little bit, and I know that people need to sort out their clothes, but I think I'm going to leave that until after the Easter break. So I might want to change this attire start date to after Easter, so I'm going to put it a month in advance. So let's say April the let's do 15th. So that's when the task is going to start.

Now in doing that, one of the problems I have is that this task is now shut off to the right in my charts. If you look I can no longer see it. That may or may not be a problem but you know how to resolve that already, because you know about the Zoom Slider. So right in the bottom corner, we have our little Zoom Slider with our plus and minus buttons to control it. And the only reason I can't see it is because we're not on that correct part of the Gantt Charts. If you look at the dates running across the top, they don't go far enough into the future currently for me to be able to see the start date of this task. So I'm going to zoom out very slightly by clicking on the minus. And there we go, you can see my little task pop into view as I zoom out a couple of times.

And of course, if I wanted to, I could not only set the duration of each of these tasks, but I could start to actually set them out in time. So for instance, I could decide on a wedding day. And assuming that I'm confident we'd be ready for that I could plot that at some time next year as well. And similarly, for each of those other tasks, I could set up a duration. I could decide on the start dates and I could start to put my project plan together with a lot more care and attention, and hopefully with a lot more resemblance to what is actually going to happen. And that is indeed what we're going to be doing over the next few sections. However, this project, if it's just comprised of those roughly 10 tasks, it wouldn't really be a very realistic project. So what we're going to need to do is put in a lot more detail to make this into a realistic planning exercise.

Now, in order to do that, you need to know quite a lot more about tasks. And you need to know about things like Dependencies, and Resources. And one of the things I'm going to tell you about and in fact, we're going to start on this straightaway in the next section is that you need to have an understanding of Summary tasks and Outlining. But for the balance of this section, I just want to look at information about tasks. Now we've seen Task Name, Duration, Start and Finish dates. I mentioned work once or twice. Now before I do this, if I look across my column headings, where I have Task Name, Duration, Start, Finish, so on and so forth. And if I drag this across very slightly, you can see that I don't have a column currently labeled Work. And I want to have a column called Work.

So if you do need to make adjustments to what columns you see here, if you look right at the end, we have something that says Add New Column. So I'm going to click the drop down. And there is a whole host of different columns that you can select and they are in alphabetical order, making it slightly easier for you to find the one you want. And I'm going to scroll all the way down to the bottom. And I'm going to look for the one that says Work. And there it is select selected. And you see I now have a Work column. So I'm just going to grab it and drag all the way across, and I'm going to drop it next to Task Name. And now you see I have my new column in between Task Name, and Duration.

Let's get back to just talking about information about tasks. For any task in Project 2019, there is an awful lot of information about that task available. And you may need to be able to manipulate that in some way. Now I've got the Attire task selected. And what I'm going to do is right click on that row to bring up the Contextual Menu. And one of the options about fourth from the bottom there is Information. And I'm going to click Information and it brings up the Task Information Dialog. Now this is a dialog with half a dozen or so tabs running across the top. And each tab has information about the selected task. Much of the information won't mean much at the moment. But by the end of the course most of it will, hopefully.

And some things I think the descriptions that you can see here, pretty much explain what that particular piece of task information is about. So for instance, you know about the name, but what about percentage complete or the amount of work that we've done? Well, currently, we haven't done any of it. So that's why it's showing a zero percent complete. It's an Auto Scheduled task. We've briefly mentioned that previously. And you can see the Start date and the Finish date there. It's not an estimated duration. So that's why this checkbox isn't ticked. And it's a three day task and it has a priority of five hundred.

Now the other properties on this particular tab are ones that we're going to be looking at later on. But let's look at the other tab. So let's jump across and take a look at Predecessors. What are this tasks predecessors, which tasks must happen before this one, or which tasks in some way depend on this one, which resources does it use? And there is also an Advanced Tab with information like Deadlines, Constraints, Specific Calendars to Use, and so on. Virtually all of these we're going to be looking at during this course. We can also do things like Record Notes about the task, and we can even set up Custom Fields with custom information about the task. So that's the task information for that particular Attire task.

Let me cancel out of this. And just point out something I've mentioned a couple of times before. Task information is a good example of something which you can get at in a variety of different ways. So with the same Attire task selected, if I go to the Task tab at the top, and on the ribbon, there is a button in the Properties group called Information. And that brings up the exact same dialog box. Let's cancel out of there. Another way I can bring that up is to just double click on the Attire task. And you see I get exactly the same dialog box.

So a few different ways for you to bring up that task information box. And that is something important for you to remember because being able to access this task information box quickly, is something that's going to be pretty important to you as you run through this course. And if you want to do a little bit of extra reading about task information, remember that you always have that Help button down in the bottom left hand corner of the task information box. So that's it for this section. I will see you in the next one.

## Section 5 – Summary Task and Outlining

### Video: Subtasks and Outlining

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to look at Summary Tasks and Outlining, and I'm going to use the wedding project and demonstrate how we can build up the level of detail and the structure of this project.

Now, I mentioned a couple of times already that the tasks that I currently have in the project, so Planning, Attire, Guests, Venue, etc., are actually high level tasks. They really represent groups of tasks. And what we're going to start to do now is to flesh this plan out a little bit and break up each of those high level tasks, what we're going to call Summary Tasks, down into Individual Tasks, or Subtasks. And by the end of this section, we'll have a much more detailed project plan. But to get us started, I want to look at one particular Summary Task. And just before we get into it, I want to point out two things.

First of all, if you were doing a breakdown of the tasks involved in a wedding project, particularly if you're doing it from scratch, you would almost certainly come up with a different breakdown to me. So the tasks that I'm going to add, you might not necessarily add into your project plan. But just remember that this is a guide as we go through, and you can add whichever kinds of tasks you like. But it is important that all of the necessary tasks in the project are represented ultimately in the project plan. And the second thing to point out is, although you're going to add quite a bit of detail to this wedding project plan, you could add a lot more. So again, don't use what I'm doing as a casting iron guide. You add in the tasks that are relevant to whatever it is that you're planning.

Now, we're probably going to end up with something in the order of between 50 and 100 tasks in total. But if you were doing this for real, and it was a particularly thorough plan, you might have hundreds and hundreds of tasks. So please just bear that in mind as we go through. So the task I'm going to break down first is this one here, the Guests task. So if I click on venue, and then right click my mouse, I can go to Insert Task. And what that will do is it will insert this new task item, surrounded by Chevron's underneath Guests. And this means this is going to be one of my Guests subtasks. It gets a default name of New Task. And then default values for Duration, Work, Start and Finish date as well.

Now I'm going to rename this task to make it a little bit more meaningful. And all I need to do is click in the Entry Bar at the top and type in the name. So I'm going to call this one Make Guest List and hit Enter. So that's my first guest related task. Now the important thing here is that this is actually a sub task of my Guests task. And in order to indicate that it's a sub task, I'm going to demote it in my task hierarchy. And there is a button in the Schedule group on the Tasks tab for that. So if you go to the Schedule group, you'll see you have Promote and Demote buttons. And you'll see if I hover over this one, it says Indent Task and gives me the keyboard shortcut for that. And if I hover over the other one, it says Outdent task.



So if I click on Indent, the task automatically demotes within its hierarchy. So now not only does Make Guest List get indented, and it clearly indicates that this is a sub task of Guests because of a number of other things that are going on here as well. One of them is that the word Guests has now become bold, indicating that this is a Summary Task. And also it gets this tiny little wedge or triangle next to the word Guests. And we can use that wedge to collapse or expand any of the subtasks related to that task. So if I click it, my sub task disappears. If I click it again, it reappears. So this is really useful, and a really sort of great space saving trick when you have lots and lots of tasks, which we will do as we build this up. If you're not particularly interested in a particular group of tasks at that moment in time, you can just collapse up the group. And it just enables you to see a lot more of maybe the tasks that you are more interested in. So it's a really great way of being able to control that.

Now what I'm going to do is I'm going to put in a second sub task, so I'm going to click on Venue Again. I'm going to right click and select Insert task. Now this new task has clearly gone above Venue Again, but it also inherits the indentation level what we call the outline level of the task above it. So it automatically becomes a sub task of Guests because it gets the same indentation level. So let me again, type in a name for my new task up to the entry bar. And we're going to say for this one, Send out Invitations, very important thing to remember. And click on the tick or press Enter. Now my column is wide enough to accommodate Send out Invitations. But if I did have my columns slightly less wide, slightly narrower, I should say, you'll see that the text automatically wraps around in the cell. I'm just going to take that back by double clicking to expand to the length of the longest piece of text in this column.

Now, if when I entered this, Send out Invitations wasn't actually meant to be a sub task of Guests, all I need to do is make sure that I've got the tasks selected. And then one of the other buttons in the Schedule group is the other one that we use; so Outdent task. So if I click that, you can see it moves it ever so slightly, and it's no longer a sub task of Guests. And we can test that even further. If I was to collapse that Guest task, you can see that I can still see Send out Invitations, it hasn't been hidden with the rest of this group essentially. So very easy to Indent and Outdent tasks to either make them tasks or subtasks.

Now in this instance, I do actually want Send out Invitations to be part of this Guest group. So I'm just going to highlight it again, and use my indent task button to make that a sub task of Guests once again. So what I'm going to do now is go through and add in a third and a fourth sub task for the task Guests. So having into the fourth sub task, let me just point out something else here. Let me right click on Book Guest Accommodation. Notice that the Indent and the Outdent buttons are both available here as well on the mini toolbar. So if you wanted to, you could use those as well. And as usual, as you're working in Project 2019, Project itself offers you the most likely commands on either the contextual menu, or the mini toolbar. So keep your eyes open for those because they often give you a very quick way of working on a task like this.

Now at this point, you may feel inclined to work out how long each of the tasks is going to take, and when each of them needs to happen and so on. I don't need to worry about any of those things at the moment, we're going to come back to the Durations, and the Timescales and Dependencies and so on as we go through the next sections of the course. All I want to do at the



moment is to put in the structure of the project, and then we'll start to add the detail a little bit later on. Having said that, there's one more thing I need to show you here about Summary Tasks. So let me go to Make Guest List. And I'm going to increase the duration to eight days.

Now if you look over at the Gantt Chart itself, you'll see that the Make Guest List task is indeed now eight days long. But you'll also see that the Summary Task no longer has the same type of bar representing it as a standard sub task. The Summary Task has a different format bar on the right there. Now we're going to talk about Gantt Chart formatting much later on. And you can in fact change most aspects of formatting of these bars anyway. But there's two important things. One of them is that the Summary Task does have a different formatter bar, which helps it stand out on the right there. But also the Summary Tasks by default does not have a duration of its own. The duration of the Summary Task is actually the duration from when its first sub task starts right through to when its latest sub task ends. So the duration of the Summary Task isn't effect dictated by the scheduling of these subtasks.

So if we look at ours here, our Guests task is showing in this format, and it's showing eight days. And that's because the longest task or the longest sub task, I should say that we have currently is Make Guest List which is also eight days long. And the other subtasks are only one day. So hence why this bar is showing as currently being eight days long, because it will show the duration of the longest sub task in the list. What I'm going to do now is to insert the rest of the subtasks for this particular project. Now, if you'd actually like to do this yourself, rather than use the sample file, the demo file that I'll tell you about towards the end of this section, there is a text file in the course file folder. And this text file lists each of the subtasks under its relevant Summary Task.

So if you want a bit of practice, you could go through and set all of these up. This is what you'll see in that text file. And again, just a reminder, it's called SSI Project 2019 wedding task breakdown.txt, so please feel free to use that as a practice. So here is the revised wedding plan. This will be the version that I'll save as a Wedding 02. So if you want to take a look, and perhaps somehow compare it with the version you've made yourself, that's fine. And there is one other area now that we need to look at. And in order to look at that area, what I'm going to do is add even more detail to this temporarily. Now I'm going to take the task, Select and order wedding dress, and I'm going to break that down into three further subtasks. So I'm going to right click, select Insert task. And the first one is going to be Select wedding dress. And click the tick. And I'm going to then indent that to make it a sub task of Select and order wedding dress. And you'll see as immediately when I do that, the task above, Select and order wedding dress becomes bold, and I get my little triangle at the side that expandable and collapsible triangle.

Let's do another one. Same process, right click, Insert task, and we'll call this one Order dress. And the final one might be Measurements, and fittings. And you'll see that all of them have taken on the same indentation of the subtasks that we added. And then we might, for example, break down Measurements and fittings into Measurements and then first fitting second fitting third fitting something like that. So as you can see, even though we're in the very early stages of planning this project, we're already getting pretty deep into building out that structure for our plan.

Now when you're looking at a plan like this, and bearing in mind that we've still only got around about, oh, let's have a look right to the bottom under 50, under 45 tasks, I should say. The highest ID number there, if we scroll down is 43.

If we really went in and put in all of the detail actually making your way around, this plan would start to get quite complicated because it will look more and more complicated. We haven't even started yet on durations and assigning resources and putting in dependencies and time constraints and so on. So there'll be much more detail to add. And it's usually the case when you start to increase the size of a project that you only want to look at certain parts at certain times or even that you only want to look at the project at a certain level. Now there is a straightforward way of determining the level of detail that you see in a plan such as this one.

So I'm scrolling back up to the top of my plan and I'm going to select Attire, the Attire Summary Task. And that's the task with the ID of four. If I click on the View tab, and I'm going to go to the Data group, and there is an Outline button just here. And if you look at the description, you can see this, the ScreenTip has come up it says, "specify which outline level should be used in the view. For large project you may want to collapse everything to outline level one or two and then expand only the sections that interest you". So if I have Attire selected, and I click on the bottom of this outline button, let's see what happens if I say select for example, Hide Subtasks.

Now you'll only see Attire and all the subtasks and all levels below it a hidden. Let's go back to the Outline button again. And if I want to show those subtasks I just click on Show Subtasks and there we go. Now in fact, I can apply the same principle to the whole project. So if I click on the bottom of the outline button again, and say click on level 1, it's going to show me Outline level 1. And look what's happened here, all I see is everything just at level 1. If I click on level 2, I get to see everything at level 2. But note with task ID five, Select and order wedding dress, under Attire level two means that I don't see its subtasks. I only see the level two subtasks, Select and order wedding dress. So as you can see the Summary Tasks like Planning and Attire and Guests are all at what we call level 1. And the level below that is level 2, and so on.

There is in Project 2019, a level zero. And level zero is actually pretty important. So let me show you what level zero is. If you go into the Gantt Chart Tools and the Format tab, towards the right hand end, in the Show Hide Group there is a checkbox for Project Summary Task. And the Project Summary Task has some very important uses, some of which we're going to look at during the duration of this course. Now I already have this switched on. But if I was to take the tick out of that box, just look in the Task Name field, what happens when I untick project Summary Task. Can you see it removes that main heading? Let me click it again and you can see SSI wedding 02 comes back. And there is a duration for the project Summary Task which in effect is the duration of the entire project currently.

And as we'll see, there are many aspects of the project that we need to use the Project Summary Task in order to deal with, but more on those things later. So I'm going to select the Project Summary Task, I'm going to go back into Outline and I'm going to click Hide Subtasks. So bearing in mind anything you select in this Outline group applies to the task that you're currently clicked on, which is why I clicked on the Project Summary Task. And now you can see it's

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hidden pretty much every task in my project. So let me put those back again, Show Subtasks and my project comes back. And then finally since I've put in the subtasks, subtask five here, Select and order wedding dress, I think I'll leave these for now. They may be a little bit useful later on. So that's it on Summary Tasks and Outlining. Please join me for exercise two in the next section.

## Video: Exercise 02

**Deborah:** Hello again and welcome back to project 2019. In this section, I'd like you to take the information in the File in the exercise folder, Project 2019, exercise two task breakdown dot txt, which is this text file that I have open on the screen. And I want you to use that to create the full version of the Bathroom Refit project with structure.

So for example, in the Planning Summary Task, there are six subtasks scoping, select style, decide about project manager, check permissions required fixed dates, and temporary accommodation. And what you should produce will hopefully be similar to my sample answer for Exercise 2. Now notice I've still only got one day estimated as the duration of each task. But my project now has structure.

And in particular note the Project Tasks Summary right at the top there. It has an ID of zero. So that's it for exercise two, my sample answer is in the usual place and I will see you in the next section.

## Section 6 – Linking Tasks and Dependencies

### Video: Dependencies

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to look at Dependencies. And as we're doing that, we're going to add quite a bit more detail into this wedding plan.

Now, you might be wondering what a dependency is. Well, a dependency reflects the fact that some things happening depend on other things happening. The way in which they depend can be quite complex. But in a very simplest type of dependency, we would say that one task cannot start until another task finishes. But we can have much more complex Dependencies than that. And in particular, one task may depend on many other tasks. Now let's start looking at this, let's take a pretty straightforward dependency to begin with. So let's take a look at tasks six, and seven. Select wedding dress, and Order dress. Now, clearly, you're not going to order the dress until you've selected it. But as soon as you have selected it, you might then want to order it.

If I want to record in my schedule, that one task is dependent on another, the very simplest way of doing it. And let me select this first task here task six, I'm going to hold down my control key and select task seven. So I have both of those tasks selected currently. I'm then going to go up to the Task tab and in the Schedule group, there is a button just here, it looks like a chain link button, and it says, "Link the selected tasks". And you can see there that there is a shortcut key of Ctrl plus F2. So let's click that. And you can link tasks, so one can't start until the other one has finished. And this establishes the very simplest kind of dependency. Now if you look over on the Gantt Chart, you can see that we now have an arrow indicating the dependency whereby task six must finish. And you can see the little arrow there. So it comes out of task six at the finish line, essentially, and points towards the start of task seven.

And if I pull this divider here, you'll see that that reveals the predecessors' column. And you can see that now for task seven, in the predecessors' column, it now has the number six in there, which states that task seven is dependent on task six completing. Now let's look at the durations of these tasks. So let's go back to select wedding dress. This is obviously very difficult to be absolute about. But let's suppose that the bride has decided that in order to select a wedding dress, it's actually quite a long and complex process. So she's probably going to need maybe a month or two in order to be able to do that. So let's set it in terms of working days, weekday working days, let's call it eight weeks, or 40 days in this case. So if I click on the wedding dress task and go to duration, and I'm just going to change this to 40 days. And you can see immediately that the Gantt Chart updates to reflect that.

Now that's all fine. But in terms of ordering the dress, that's a reasonably quick task, once you've made the selection, you're probably going to order that dress fairly quickly. So that could be a matter of going into the store and filling in a form committing to spend a certain amount of money, maybe paying the deposit on the dress, and we'll talk about things like costs later on.

And we're really going to say that the order is going to be placed in a day. So let's change this order dress. And currently we have an estimate in here of one day. Remember, that's what the question mark represents. It's just an estimate currently. So I'm going to go in and change this from an estimate to a fixed duration. Now I can do that in a couple of ways, I could go in and edit the cell. Or I could double click on the task to bring up the task information. And just take that tick out of estimated and click on OK.

Now once the dress has been ordered, the measurements and fittings can start. There'll be a sequence of these until the dress is finalized. And once again, let's assume that it's going to take a total period of 40 days for all that to happen. So we can select task seven, and we can select task eight Ctrl key and we could create a dependency in exactly the same way we did before. However, if I right click on the selection, if you look at the mini toolbar down here, you'll see that it has a link button. So I can do the link that way and I can do the link before I establish the second duration. So let me double click on task eight, and change its duration to not estimated, and 40 days. And there we are. And at the end of task eight, we should have a wedding dress that fits. Now let's move on to task nine select and order bridesmaid dresses.

Now, this is not a task which is completely independent of the wedding dress because as I understand it, in general, the wedding dress would be selected first, with a thought to what the bridesmaids' dresses will be like. But you certainly wouldn't start selecting the bridesmaid dresses until you were certain about the wedding dress. So let's in this case, say that the dependency is we'll select the wedding dress before we select and order the bridesmaids dresses. Now in reality with a Select and order bridesmaids dresses, that's probably going to be broken down into more subtasks underneath that. But for the moment, we'll stick with what we have. So let's establish a link between Select wedding dress and Select and order bridesmaid dresses. So up to the task ribbon, and in the schedule group, we're going to click that link the selected task button again. And let's change this duration. So I'm going to double click on the task. And we're going to take the tick out of estimated and we're going to say the duration is 60 days.

And you can see by looking at our schedule now, this takes us towards the middle of July. And you can also see on our schedule that Select wedding dress now has a number of tasks dependent on it. And of course, any task cannot only have several tasks depending on it, but it can depend on several tasks as well. Now let's start to look at these Dependencies in a little bit more detail. There is a dependency from task six to task nine, we just set that up. If I hover over the arrow that represents that dependency, there is a ScreenTip that comes up that gives me a summary of the dependency. It's an FS; a finish to start dependency. That means that the first task in the dependency that is Select wedding dress must finish or F before Select and order bridesmaids dresses can start and that is what the S is. And in fact, if I double click on that line, I get a task dependency dialog where I could if I wanted to change that dependency.

So it says from select wedding dress to Select and order bridesmaids dresses, there is a finish to start dependency with a lag of zero days. Now if I decided in this particular case that after the wedding dress was selected, and at that point, we were going to order it, we could certainly start looking at selecting and ordering bridesmaids' dresses, but we needed to leave a gap of say five days for some reason. And that would represent a lag of five days. So let's do that. Let's change

the lag to five days just using those scroll buttons and click on OK. So now you'll see that there is a five day gap in between the finish of select wedding dress, and the start of Select and order bridesmaids dresses.

So that is what we call a lag. And I could also have said that there is a lag of minus five days. So let's take a look at that. I'm going to double click and I could take that back five days or to minus five days like so. Now that is what we call a negative lag. And we often refer to it as a lead. We still have a finish to start relationship but what the relationship now says is that the second task can start five days before the first task finishes. So we can actually get started on selecting and ordering the bridesmaid dresses five days before we finish selecting the wedding dress. And again you can see that represented here on the Gantt Chart. There is an overlap between selecting the wedding dress and selecting and ordering the bridesmaids dresses.

Now I'm going to restore that to being a lag of zero days in a moment. But first of all, I'd like you to look at the predecessors' column. If you look at task seven, or the dress, its predecessor was six. Look at task eight, its predecessor was seven. When all you see in the predecessor column is a number that indicates a default finish to start relationship with zero lag. If there's more complexity to the dependency, then you'll see something such as you can see for task nine. The dependency is on task six. So it begins with a six. The FS basically says that is a finish to start dependency, which is the default. But the reason it says that is because it then says minus five days. So that code tells you that task nine has a finish to start relationship with task six, which means that six must finish before nine starts, but there is a five day lead.

So in effect, task nine can start five days before task six finishes. And whenever there is anything other than a standard default finish to start relationships, so if it's any other type of relationship, or if there is lag or lead, you'll see that coded into this predecessors' column. So let me once again open up that dialog. So I'm going to double click, and I'm going to change that lag back to zero days. But just before I click on OK, let's take a look at the other types of dependency. Now there are four types in total; Finish to Start, which is the default, as I mentioned, there is also Start to Start, which means that the second task can start when the first one does, of course, you can apply lag or lead to any of these.

The next one is Finish to Finish, which means that the second task can only finish when the first task finishes. And then there is Start to Finish, which means that the second task can't finish until the first task starts. Now by far, the most common dependency is the finish to start, but you're very likely to come across the others at some point. And in the next section or two, I'm going to show you one or two examples of these other types of dependency. The next task I want to look at is the task of making the guest list.

Now making the guest list can be quite a long and controversial subject. I'm going to assume for a moment that it's going to take maybe three to four weeks to try and make sure that everybody that should be invited, is invited. So let's change this from eight to 15 days. And again, you can either click in the cell and change it up here or double click on the task. So I'm just going to put 15 and click the tick. But let's also say that once we've got some guests on the guest list, who are definitely going to be invited, we might start sending out the invitations pretty much



straightaway. So for task 13 send out invitations, this would be a task that would pretty much run throughout the period of making the guest list. We may even wait to see what responses we get to some of the invitations.

So let's extend send out invitations to be a 20 day task. So this time, I'm going to double click. And I'm going to change that to 20 D and okay. And let's say that this is going to start five days after making the guest list starts. So once we've been working on the guest list for a week, we're going to start sending out the first batch of invitations and see what sort of responses we get. So let's link these two up to the task ribbon and click our link button. And I'm going to double click and set my task dependency. So this is going to be Start to Start. And we're going to put a five day lag in there.

Now we need to allow time for people to respond to invitations. As usual, quite a controversial subject, how long you would like to give people to respond to an invitation, but probably a figure of something like two or three weeks. So you're going to start sending out invitations on a particular date. And then over a period of time, you'll send out some more and you'll start to get replies back. But in reality, you can't really finalize the guest list until you've received all of the responses to the invitations. So what I'm going to do is to create a link between send out invitations and finalize guest list. So I've created a link between those two. And I'm going to put a lag of 15 days in. and then instead of saying it's a Finish to Start link, I'm going to say that it's a Finish to Finish link. And I'm also going to say that finalize guest list is a five day task.

And what you can see there is a situation where at some point before our deadline, we're going to start to finalize the guest list, but we're not actually going to be able to finish it until 15 days after we've sent out the last invitation. Now, of course, the way that I've done it that was partly just to demonstrate these types of dependency. But you'll see from that also, that when you're setting up Dependencies, there are often a number of options to consider. And coming up with the right sort of dependency can sometimes involve quite a bit of thought and discussion. So we've put quite a bit more detail into our plan now for the wedding. In the next section, we're going to look at Constraints and Deadlines, and we're going to do a little bit more on Dependencies as well. So please join me in the next section for that.



## Video: Setting Constraints and Deadlines

**Deborah:** Hello again, and welcome back to our course on Project 2019. Since we last looked at the wedding plan, I've added quite a bit more detail to it in terms of the durations of many of the tasks, and also some of the dependencies.

So for example, if you look down at ID 20, where we have Catering, within there, there are two pairs of tasks, there's the first pair, and there is the second pair. And I've allowed 15 days for making a shortlist of caterers, talking to them, making a decision about which one to book and then finalizing the menu with them. I've allowed 15 days for each of those tasks. And then I've done the same for the baker. So make Baker shortlist 15 days, select Baker and order cake, also 15 days. Now it may look from the current plan that we could get this wedding done very, very quickly. But as you can see, one of the main issues is that we're doing everything all at once right at the start of the project. And in reality, that's not really what would happen. There just wouldn't be enough time in this short period of time in the case of a few weeks to do all of those things at the same time. And as we'll see later on in the course, there are various factors or various reasons that will force us to spread these activities out over time. But for the moment, I just want to leave the plan like this except for adding a few Dependencies that are really important.

Now one situation that arises very often when you're working on projects is that there are one or two key decisions to make. And there are certain things that you must do before you make those key decisions. And there are certain other things that you can't do until after you've made those key decisions. And what I want to look at in this first section is the very key decision of the wedding date itself. So you can see here, task three set wedding date. Now you can't do everything before you decide on the wedding date. So for example, we talked in the previous section about making the guest list and sending out the invitations. You can't send out the invitations until you've set a wedding dates, but you can't set the wedding date until you know what the venue you're going to use is and if it's available.

You may also want to make sure that the venue you're going to use for what we call in the UK, the reception is available as well. But you are going to have to take some things on trust. So for example, you may well have to say well, I'm going to fix the wedding dates, and then see which photographers are available and book one of those photographers. So what I'm going to assume here in this wedding plan is that there are two or three key things that must happen before we can set the wedding dates. And from that point onwards, various other things will be dependent on knowing that wedding dates. So appreciating once again that there is quite a lot of detail missing from this plan. I've been through the plan. And I've decided that the two key things that I need to do are number 18 Book the reception venue, and also number 38 Book the wedding venue.

So I'm going to go up to Set Wedding Date. And rather than using the linking mechanism that I've used before, I'm going to type in those IDs straight into the predecessors' field on the end here. So I'm going to put in 18, comma 38. And that gives me a date on which I'm going to set the wedding dates. I should point out that this is not final yet because we have a few more hurdles to overcome a little bit later on. And then from the setting of the wedding date, for

example, I can say well, if I select Set wedding date, then certainly sending out the invitations will be dependent on that. So I'm going to put a link in between those two up to task and click on link. And now we have a more realistic representation of when we're going to be in a position to send out the invitations.

Now particularly in the early stages of creating a project plan, it's important to review the plan from time to time to make sure that things haven't been missed. I've left a couple of items here which clearly have Dependencies that aren't currently represented in the plan. So for instance, task 19 plan and finalized seating arrangements, and that will clearly need to have the guest list finalized before that can happen. So really a predecessor of plan and finalized seating arrangements should be task 14. Now, there is still one or two key Dependencies that I haven't put into the plan yet, but I want to turn my attention now, to Constraints and Deadlines. Now, let me insert a completely new task into this schedule. So right click, insert task, and you see that it's inserted it at the project start dates, we change that option much earlier on in the course, if you remember. And if I open up that task, and go to its Advanced Tab, I'll see that the constraint on that task is that it should start as soon as possible.

And when scheduling from a start date, and when you have the project start date as the default date for new tasks, That is the Constraint that new tasks get. Generally speaking, they should start as soon as possible. Now, there are a number of different constraints that you can set on tasks; As late as possible, As soon as possible, Finish no earlier than, so on and so forth. And it's worth pointing out that as late as possible, will be the default when you're scheduling to an end date. But you also have this multitude of other options in the constraint type drop down that you can select.

Now, it's quite often external factors. That mean you need to put constraints other than straightforward ones such as, as soon as possible onto a task. In many cases, when you're scheduling from a start date as we are here, as soon as possible is the best bet, because you're basically trying to get all the tasks done as soon as possible without restricting project to do certain things on certain dates. But let's take an example of a possible constraint. Let's suppose that we already know that one of the bridesmaids who is the bride sister is actually out of the country. So she's working abroad at the moment. And she's not going to be available for the Select and order bridesmaids dresses until the beginning of May 2019. So whatever else happens, she won't be available until then.

Now if I double click on this task, and go to the Advanced Tab, I can say constraint start, "no earlier than", and then I can choose the date at the beginning of May. So whatever else happens, she won't be available until then. And when Project 2019 schedules the wedding, it will take into account that constraint that we can't start earlier than that. Now, you may want to at this point, also put a note in here to remind yourself why the constraint is there. So across to the Notes tab, and I'm going to add a quick note. And as you can see, Project 2019 has successfully rescheduled this task to make sure that it doesn't actually begin until the beginning of May. Now with the plan as it is at the moment and considering that particular task, the constraint that we've just added really has had quite an impact on the duration of the whole plan. So you've seen there an example of a constraints. Let's now look at deadlines.

Deadlines in many ways are quite similar to constraints. But there are two or three really important differences. One difference is that the deadline is very easily visible in the Gantt Charts. It's actually a physical marker in the Gantt Chart, which you'll see in a moment. And you get not only a marker in the Gantt Chart, but you can also get warning indicators in the Indicator column to the left of the table. Another major difference is that although constraints are used in scheduling, as you saw just now with the limitation on the availability of one of the bridesmaids Deadlines are not actually used in scheduling. They are used in some calculations associated with scheduling but they don't actually affect the schedule itself.

So let's suppose that we decided obviously we want the wedding to be a huge success. But if possible, we'd like to schedule it in a better time of year. So maybe it's always been our dream to have an autumn or fall wedding. So I want to change the actual date of the wedding to the beginning of September. So what I'm going to do is go down to the wedding date task itself which is down here task 41, open that up, and I'm going to go to the Advanced tab. And I'm going to put a deadline on it. And the deadline I'm going to put on it is September the first. Now, you can't actually see September at the moment in the Gantt Chart on the right there, so let me just zoom out a little. And now you can see that the deadline marker, the green arrow, just there. And if I hover over it, you see deadline task, wedding day, deadlines, Sunday, September, the first 2019. Now, that's a purely visual marker, it won't put in a physical limitation.

But clearly, as we work further on the plan, we need to try to make sure that the wedding day never moves to the right of that dates, we've got quite a lot more to do on it yet. So we don't need to worry about that too much at the moment. And as I say, if we do start to get a problem, we will see an indicator in the column at the left of the table. So I have two other things to do in this section, both fairly quick things to show you. First of all, I'm going to go into Options, so File, Down to options. And on the Schedule tab, one of the options is "auto scheduled tasks scheduled on" and we changed it to "project start dates", which is the setting that I usually use. But let me just change that to Current date, and click on OK. And then I'm going to go and insert a new task. Now if I double click and take a look at the constraints on that new task, it doesn't have an as soon as possible constraint, it has a start no earlier than constraints of today.

Which means as the constraint implies that the task cannot be scheduled by Project 2019 to start earlier than that dates. So that's an important distinction. I'm now going to cancel that and delete both of those new tasks. So highlight them both, right click, Delete task. I'm just going to go back in and change that setting. So back to schedule. And I'm going to change this back to project start date, because that is my preference. The second thing I want to do here is to make quite a big change, right near the beginning of the plan. So ID 2, agree budget and approach, in terms of project management itself, quite often projects have phases. And probably the most likely phase with a wedding planning project would be that we'd start off by saying, well, how much money are we going to need to spend on this? What sort of level of spending are we looking at? And what will our approach be?

So for example, are we talking about a relatively small family wedding with maybe just immediate family and a dozen or so people? Or are we talking about a much grander affair with two to 300 guests and maybe even more than that, attending the reception and entertainment in

the evening. Now really, that particular task is a precursor to virtually everything else within the schedule. And sometimes when you've been looking at a plan for a while like this one, you may decide actually, I'm not 100% sure about the Planning Task at the beginning there. Because, setting the wedding date and agree in the budget and approach are really two completely separate tasks. So what I'm going to do here is I'm going to promote set wedding dates. And again, you can do that from the mini toolbar. And also promote agree budget and approach.

And I'm going to remove that Planning Task by right clicking and delete task. And then I'm going to make task one, a predecessor of each of the Summary Tasks. So let me just drag this out slightly. So task three Attire, its predecessor is going to be one. So what I've done is go through and put task one as a predecessor of each of those other Summary Tasks. And this reflects the fact that as you get more and more detail and accuracy in a plan, you may well want to restructure it. You may want to take everything from attire onwards and put that inside a sort of super summary task which would make it much easier to represent the fact that everything in that task follows after the task with ID one.

Something else you can do, which often makes it easy to read a plan to understand the structure of it. If I select task three, and on the Task tab, in the Insert group, click the lower half of the task button, one of the options is Blank Row. And you can insert a blank row quite neatly into a project plan. And very often that emphasizes the structure of the plan. Note also let's take this task here with ID one. If I insert a blank row again, look at what happens to all of the predecessors in the predecessor column. The task is now task two. And of course, all of the other task IDs are updated accordingly. So that's the end of this section. I will see you in the next one.

## Video: Setting and Organizing Milestones

**Deborah:** Hello there and welcome back to our course on Project 2019. In this section we're going to look at Milestones. And, Milestones are used to denote significant points or events in a project. Usually Milestones have a zero duration. But Project 2019 does allow Milestones with nonzero durations as well.

Now, Milestones are used for a number of different reasons, and amongst the most important ones are as a way of providing a management snapshot of progress on a project. So there is, for example, a particular report called a Milestone Report, where you can just view the key Milestones in the project and get a summary of where you are in terms of those Milestones, which in turn gives you a good idea of general progress on the project. They can also be used to show you what's coming up next, what's happening say over the next week or so. And very often Milestones are associated with a payment schedule of some sort. So for example, when a particular point is reached in a project, there may be a payment to make.

Now what I'm going to do with the wedding project is to take some of the existing tasks and turn them into Milestones. And I may will introduce one or two new Milestones along the way. Before I start, note what I've done with the project at this stage, because it looks a little bit different than when we last saw it in the previous section. Now this is version three of the project. And I've collapsed up all of those Summary Tasks, as you can see down here, from task six to 43, they're now all collapsed, and we cannot see the subtasks. So for instance, there is a dependency between a task in wedding day and the setting of the wedding date.

But because wedding day is collapsed, you can't see that link. If I expand wedding day, again, it's now visible. So just really to emphasize the point that when you're looking at a project with some Summary Tasks collapsed, you need to be careful at what you're interpreting, because some elements of the project may have become invisible, even though they're actually quite significant. Now, one of the very important aspects of Milestones is that generally speaking, although I should say there are exceptions, but generally speaking, because a Milestone is a task of zero duration, it is assumed that there is little or no work associated with the milestone itself.

So if I take task four here, for example, Set Wedding Date, if that doesn't actually involve any significant amount of work, I could make it into a milestone. But what I'm actually going to do on this occasion is to insert, specifically a milestone which indicates when the task has been completed. So I'm going to select the task below it, which is basically a blank row. And then on the Task tab, in the Insert group, I'm going to say Insert Task. Now that task, I'm going to rename to Wedding Date Set, and click the tick. So that's basically a statement that something has happened, it isn't something to do itself. And then in the duration, I'm going to change it to zero days, which will make it into a milestone. And the default notation, if you look at the Gantt Chart, you'll see you get a little diamond icon. And we also have a date in there.

So now I'm going to select Set Wedding Date, and I'm going to link these tasks in the same way. So now I have my first milestone in my project. Now I'm going to set Milestones that indicate when the venues have been booked, the venue for the wedding, and the venue for the reception.

So let's start with the Reception Venue. So I want something to indicate that task 21 has been completed. So I can do the same that I did just now in set task. But there's also an option within the Insert group on the Tasks tab of Insert Milestone. So let's try that one instead. I'm going to just highlight task 22 because we want the new task to go in above. I'm going to go to the Insert group and select Milestone this time. And you can see automatically it's given me a task but the duration of zero days. Let's change the name. So we'll say Reception Venue Booked. Let's just link these two tasks together. We should be getting used to doing this by now. And I'm going to do exactly the same down here for Wedding Venue.

So let's go in, highlight the one below, put in a milestone, and we'll call this Wedding Venue Booked. And we will link these two tasks together. And then I've got just a very few other Milestones to add. I'm going to add one to indicate that all of the attire has been ordered, I want to indicate that the guest list has been finalized, and finally that the wedding is registered and licensed. So I've added a few other Milestones in. so I've added another one to check to make sure that all attire has been ordered, one to indicate that the guest list has been finalized, and finally one to indicate that the wedding has been registered and licensed. And then I have just one more thing to do. And that is that I'm going to turn the wedding date itself into a milestone. So I'm going to select Wedding Day, double click. Now, I don't want to reduce its duration to zero days, because there'll be other things to do on the wedding day itself.

So I'm going to jump on to the Advanced Tab, and I'm going to check this little checkbox down in the corner Mark tasks as milestone, and click on OK. So that task is now marked as a milestone. But as you can see, its duration is still one day. So there we are, we have some Milestones in our project. I'm going to take a look at those in just a moment. Before we do, I don't actually need this timeline that's showing at the top here. And as this project is beginning to take up more and more space, let's save a little bit of space by hiding the timeline. Now, can you remember back on how to do that, we go to the View tab, and you can just switch off Timeline at the top there. If you only want to see the Milestones, you can use one of the features of the View tab, which is to use a filter. And in the Data group of the View tab, there is a filter control just here with a drop down. And one of the options in that drop down is Milestones. If I select that, you're only going to see those project Milestones. So that gives you an idea of how useful Milestones can be in terms of setting out the key points in the project over the course of its duration.

Now one other point that's clear here is that we still have a lot of work to do on this project. Because for instance, we still haven't worked out when the wedding day is going to be. It's still right near the beginning of the project. Now you might be a little frustrated by this and thinking well, why don't we sort out that wedding date? Well, the reason that we don't is that we still have some very key factors to take into account before we can work out what the wedding day can be. And we're going to be moving on to those factors after we've done exercise three. Once we've done those, we'll be in a much better position to actually pin down a wedding day. And then we'll see how useful these Milestones can be in terms of giving us a realistic summary of the key points in the project. Now if you applied the filter as I have here, I can unapply it by clicking on

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the drop down and selecting No Filter. So that's the end of this section. Exercise three is in the next one. So please join me for that.



## Video: Exercise 03

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, I'm going to set you exercise three. And as exercises go, this one is actually quite a long exercise and it will take you a little while to work your way through this one. And it has a few constituent parts. What we're going to do is to take the Bathroom Refit project, and not only are we going to add the durations of the various component tasks, but we're going to put in Dependencies. And we're also going to change the overall structure of the project, for reasons that I'll explain in a moment.

Now, sometimes when you go through a project, and you have your first try at listing out all of those tasks as we've done here, you might be successful in some ways, and you might make it through that list. But you won't necessarily structure it in a way that lends itself either to easy scheduling and planning, or to easy understanding. And you can finish up in a situation. And this is what is happening in the wedding project that you finish up with many, many complicated Dependencies. So for instance, I have a task here Preparation, it's task 16. And one of its sub tasks is Prepare for painting. Now we know that further down in the plan, we also have a Paint task. And clearly one predecessor of the paint task is going to have to be prepare for painting. But there will also be various tasks following on from painting that depend on it, such as actually fitting the equipment.

Now whilst a number of Dependencies are obviously going to be the cornerstone of scheduling the project, you can greatly simplify the structure of the project once you've got your basic list of tasks by dividing the project into separate phases, and making each phase as self-contained as possible. Now what we're going to do with the Bathroom Refit project is to make four separate phases. And from the point of view of Dependencies, each of the four phases is going to be self-dependent. Now looking at what's involved in this bathroom, refit the four phases that I think we should divide the project into a basically a planning phase, that would be a phase of activities that happen before we start doing the work. So planning certainly would be in the preparation phase, or the planning phase. But also things like arranging the finances, finding the contractors, so on and so forth. The second phase is going to be a purchasing phase. And there's quite a lot of selecting to do.

So I need to select paint, equipment, tile, so on and so forth. And I need to order it and also get it delivered. And I'm going to need to get all of that done before the work actually starts. The third phase will be the work itself. So the implementation itself. And the final phase will be where any snags are dealt with, the sort of cleaning up phase making sure that everything is ready to be used. Now in order to give you the information you need to do this division into four phases, let's take a look at my answer to exercise three.

So you see there the four phases as collapsed Summary Tasks. Task two is the planning phase summary task, and its total duration is 12 days and you can see the different columns of information. Clearly the values in the duration columns for Summary Tasks will be derived from the duration of its sub tasks. But the predecessors' column shows you the predecessors of



Summary Tasks. And the successes column shows you the successes of the summary task. So if you take for example, task ID 21; the purchasing phase, its predecessor, the one it depends on is task two, which as you can see is the planning phase. And its successor, the one that comes after it is task 40, which is the implementation phase. So you can see there the very simple structure of the overall project in those four phases.

Now if I open up one of the phases, I'll give you an overview now of the Dependencies and how they work within the phase. Now within the planning phase, there are three Summary Tasks; planning, contractors, and finance. And basically with these three Summary Tasks the individual durations are there and lots of individual Dependencies within the planning phase are also there. So for instance, if we look at scoping, which is task four, you can see it has five successors, task 5678, and nine. And these include selecting the style, deciding whether we're going to have a project manager or not, checking what permissions are required, if any to do the work, and fixing the dates for the works and arranging temporary accommodations to use whilst the bathroom is out of action. And then we have the summary task contractors. This is where we get some contractor recommendations, we make a shortlist, we get some quotations then we appoint the contractors.

Note that the get Contractor recommendations task runs in parallel with some early phases of planning. But we won't be getting any contractor quotations until the planning Summary Tasks, so task three is complete. Because we want to be clear about exactly what we're expecting the contractor to do. We then have the finance summary task. Once we've got all our contract quotations, we can set about arranging the finance. Now in order to help you get all of these numbers right; to get the durations in and get the Dependencies right and so on. I've prepared a text file for each of the four phases, which is in the exercise folder. And it lists the durations and the Dependencies, also the predecessors and successors in terms of the task IDs, in my answer to exercise three. If for some reason your IDs are differently number to mine, then clearly that will affect all of the predecessors and successor values. But hopefully, your ID numbers are the same as mine. So you should be able to use this to help you not only enter the appropriate durations, but also to set up all of the correct dependences. So I've got up on the screen now the text file for the planning phase. And as I said, there is a text file for each phase in the exercise folder. So let's look at the purchasing phase.

Now you might be wondering throughout why you can't see start and finish dates here. And my answer to exercise three. Well, whenever you're working your way through exercise three, it won't be on the same dates that I'm recording this. So to a large extent, the dates if I gave you my dates, they wouldn't really help you. It's the durations that are important, the Dependencies are important. But I'm assuming throughout that your dates are going to be different from mine. Now the purchasing phase is pretty straightforward. It includes the delivery of each of the materials, the tiles and so on. So at the end of this, I've introduced a milestone there, which is task number 38, which is all materials on site. That's a very significant milestone in the project.

Next we have the implementation phase. And let me explain the main points here. Now we set up a skip a receptacle for the waste products which arise from gutting the existing bathroom, and from the building work that we're going to do fitting the new bathroom. Then we have a lot of

preparation to do. We need to prepare for the tiling, prepare for the flooring, and also prepare for the painting. So those three items might include things like joist work there might be plastering to do and a whole host of other items. And then we do the first fix electrics and the first fix plumbing. Then we do the painting and the flooring, and the tiling, and the other wall work that's needed all of the general building work, which you can see there in tasks 55, 57, and 59.

Then we start the second fix electrics. And this is things like putting the sockets up on the walls, we then do the second fix plumbing, which might be things like pipes from the pipework behind the wall, maybe installing things like taps. It's also worth bearing in mind, it's often the case nowadays that there's some kind of electrical certification needed once the electrical work is finished, so I've put that in as task 50 just here. And then once the second fix is underway fitting the equipment begins, which is task 61. And then when fitting of the equipment is finished, we have a milestone which is task 62.

The final phase the completion phase, again is fairly straightforward. We have a task to resolve any snags or outstanding issues which is task 65 here, and then we basically clean up and we hail the project as being complete. And just one small reminder before I leave you to exercise three, do remember to move your project to change those dates to your start date, as you're not going to be using the same dates that I'm using today when I'm recording this. So that's exercise three for you, and that's the end of this section. I will see you in the next one.

## Section 7 – Resources

### Video: Adding Resources

**Deborah:** Hello again and welcome back to our course on Project 2019. In this section, we're going to start to look at Resources. Resources include the people involved in a project, they include equipment and materials used, and various other types of resource notably cost associated with a project.

When you look at the Gantt Chart, such as this one, you're primarily looking at Tasks. The table on the left gives information about the tasks and the charts on the right gives a graphical representation of the scheduling of the tasks, their durations, dependencies, and so on. Now, Tasks and Resources are basically the two building blocks of a project in Microsoft Project 2019. And we link the two together using what are called Assignments or Resource Assignments. In this section, we're going to look at Resources. And in the next section, we're going to look at Resource Assignments. One thing you may have noticed when we're using the View tab before is that the first two groups on the left are Task Views and Resource Views. And largely speaking, when we're looking at a project, we tend to be looking at tasks or at resources. But there are many views that enable us to look at both at the same time. And in particular, look at the relationship between them.

So far, when we've been looking at tasks, we've used the Gantt Chart View, which you can see highlighted there in the Task View Group. And for most people, that's the view that they use most of the time. Of the Resource Views, a very popular view is Resource Sheet View. And that's the one that we're going to look at first. So if I click Resource Sheets, this spreadsheet gives us information about all of the resources in our project. And at the moment, as you can see, we have no resources in our project. Now we're going to start to add some resources in just a moment. But before we do, just look down at the right hand end of the Status Bar, you'll see we have some icons. The one on the left is Gantt Chart View. And the three on the right, the one that looks most like a spreadsheet takes us back to the Resource Sheet. So you'll probably get used to switching between Resource Sheet and Gantt Chart.

The other two views, the ones in between are also used fairly frequently. Task Usage, which basically lists tasks and shows which resources are used in a task. And at the moment, we have no resources, so there's nothing being used. And the next one is Team Planner View, which can enable us to look at how the work in a project is distributed between a team. Now at the moment, we have no team because we have no resources to put into a team. So let's go back to the Resource Sheet View. The two main projects that I'm using on this course differ in many ways. And perhaps the biggest difference is in the resources that they use, and the way that they use those resources.

In the case of a wedding, some of the people resources involved which would be for example, the bride and groom won't be charging for their time. And also the wedding won't involve using

lots of consumable materials, not in any case in the way that a building project or a Bathroom Refit project would. If you think about our Bathroom Refit project, we have to use materials such as paint and floor tiles and that kind of thing. The difference is going to be even bigger when we start looking at Costs. Because when it comes to cost, for example, the bride and groom wouldn't expect to charge their time on this project to people, whereas the people working on the Bathroom Refit will be charging their time to whoever is paying for the bathroom refit.

So there are many differences between these two projects in relation to how they handle resources and the associated costs. But I hope that by dealing with two such different projects that we're going to in turn deal with many of the situations that you're likely to come across in future when using Project 2019. Now as we add resources to the Resource Sheet, each row on the sheet represents a resource and each column represents a property of that resource. So the first resource that I'm going to add to this project is the Bride. And first of all I need to say what type of resource is the bride. There are basically three choices; Work, Material, and Cost. And as we're going to see this is not always a particularly easy choice to make.

Generally speaking people are entered onto the Resource Sheet as Work Resources because they do work. But whether or not they charge for that work is a separate matter. But, we expect them to perform tasks and complete work rather than as in the case of say materials be consumed by a job used up in doing a particular task. Or, a cost where we basically say with a task that it has a certain cost, but isn't necessarily performed by an individual, or involve the consumption of some kind of material. Now we're going to see an example of each of these three resource types. But we're going to work for the moment on the principle that when we add people, we're adding Work Resources generally. Now when I choose a type for a resource, I will get different accessible selection of properties here. So for instance, when I declare that a particular resource is a Work Resource, I can specify their standard rate, and at the moment, that zero dollars per hour, and I can specify their overtime rate.

Now, as I mentioned, just now the bride is not going to be charging for her time on this project. So we don't need to assign a standard rates or overtime rate for the bride. We do, however, need to declare how many brides we have, and we only have one and she's represented by that 100% just here. If I were dealing with say bricklayers, and I was building a house, I might say I've got three bricklayers. So that's 300%. And I could save the standard rate that it costs me to employ those bricklayers. And then I can also enter an overtime rate, I also have a cost per use. So for example, if I'm dealing with something where there is a setup fee, perhaps a delivery fee or a contract fee, I can specify that here. And I normally also specify an accrual method.

Now for the moment, I want you to ignore a cruel. And I also want you to ignore the next column, which is the calendar that this particular resource uses, which by default is our standard base calendar. Now, we're not looking at calendars at the moment, so just ignore both of those columns. Now, when it comes to using any resource on a project, it's always a good idea to give that resource initials whereby we can identify that resource, for example, on the Gantt Chart. So for bride, I'm literally just going to put Bride for the initials. So that's my first resource set up. Now it would only seem right to add the groom as my second resource. So let's add him in here

as well. And we'll stick with the same initials and just call him Groom. So now my project has two resources.

The next resource I'm going to set up is a little bit controversial. I'm not really sure you do it in this way, but you certainly could do it this way. I'm going to add a resource of wedding ring. And I'm going to say that this is a Material Resource. So let's jump back onto the Resource Sheet add wedding ring. And I'm going to select Material. And I'm going to give it the initials of Ring. And note that when I chose material, some of the other fields, some of the other properties also changed. So for instance, Max was cleared out it no longer said 100%, which is the default for a work resource. Because we're not talking about having a maximum number of rings. We can basically buy as many rings as we want subject to available funds, of course. And similarly the standard rate change from being dollars per hour to just dollars. Because we're not talking about a rate of pay for somebody for Work Resource, we're talking about the cost of a material.

When you're dealing with cost for materials, you also declare what units the cost refers to. So if instead of wedding rings, I was dealing with building bricks. And what I might put here in the material column might well be 1000 for a 1000 bricks. Now for the price of a ring, it will be price per ring. And let's suppose the price I'm working on here is 500. And that is all the information I need to set up that material resource. So whatever point I decide to buy one or more wedding rings in my project, the cost will be recorded in the project as \$500 per ring.

Now for an example of a Cost Resource. Sometimes the person working on a project is not really working on it as though they were say a builder or in this case, the bride or groom. What they are doing is more of if you like a service, so I might choose to make the photographer or videographer for this project, a service or a cost to the project. We're not talking about paying this person by the hour. We're talking about their standard charge for photography, or video at a wedding. So in this case, I'm going to add the resource photographer. And I'm not going to deal with the photographer as though he or she is a person working on the project, but deal with them as a service to the project; a cost to the project. So on this occasion, I'm going to make the type Cost the initials, I'm going to apply our Photo.

Now you notice that there is no highlighted cost rate filled with dollars, as we had before for Work or Material Resources. And in fact, the best way to record the cost of a Cost Resource in a particular situation is to assign that cost when you assign the resource to the task. I'm going to show you how to do that a little bit later on. At the moment, the important thing is that we have listed our Cost Resource here, photographer. And of course with this project, there'll be many other cost resources. It is true to say in this particular case that many of the resources, so things like the wedding dress, and even wedding ring might reasonably be considered to be costs rather than materials. But as I said earlier on in this section, sometimes it's actually quite a difficult decision to make. And you'll certainly find that you have your own approach to determining, which is the best way of dealing with resources on your own projects.

Having set up a few resources there, we're going to do a little bit of resource assignment in the next section. But there's one more thing to show you in this section. If I select one of the resources, and note that we do have a Resource Tab, one of the options on the resource tab is

Information. And that brings up the Resource Information Dialog box. As with the Task Information dialog, you have a number of tabs running across the top and it's already got in it the information that we've entered so far. But of course, there's other information that you can add some of which we'll be looking at a little later on in the course.

Now there are other ways of getting to this resource information, you can right click, and you have an information option in the menu. And of course, you can just double click on the resource to bring up the same dialog as well. So that's it for resources for the moment. I will see you in the next section.

## Video: Assigning Resources to Tasks

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to look at the basics of Assigning Resources to Tasks. In the previous section, we set up a few resources for the wedding project.

Now, clearly, there are going to be many more. But let's switch back to Gantt Chart View using the buttons towards the right hand end of the Status Bar. And I'm going to choose one of the tasks and assign resources to it. So I'm going to select the agree budget and approach task, I'm going to right click and select Assign Resources. And this brings up the Assign Resources dialog box, and you can see a list of the available resources. So I'm going to assign the bride and the groom to this task. I'm going to work on the principle that the bride and groom are arranging this wedding themselves. So to assign a resource, all I need to do is select that resource, and then click Assign. And you'll see I get a little tick next to the name.

Now when I assign a resource to a task list like that, it doesn't automatically close the Assign Resources dialog. You note that there is a separate closed button in the dialog box. But what you can see is, first of all the number of units. Well, a 100% represents one bride. So there's one bride attached to this task, which is just as well, really. And the cost of the bride working on that task is zero. Don't forget that the rate for the bride chargeable to this project is zero dollars per hour. So if she's working on that task for 10 days, and she's still not going to charge us any money for doing it. Now one very important point I'd like you to bear in mind here. And this is going to become increasingly important later on in the course, is that a 100% means that the bride is working on the task full time.

Now in reality, it may well be that she's not working full time, and that she's actually doing her day job most of the time. And she's just spending a certain amount of time working on in this case, the budget and approach to her wedding. But for the purposes of this particular project, and this will not be the case for the bathroom refit. But for the purposes of this project, all I'm going to do is treat that as a 100% as being all the time that she has available. That doesn't mean to say it's a 40 hour week or an eight hour day or anything else, it just means that all of the time she's got available, she's going to spend on that task while the task is in progress.

Now fortunately, while that task is in progress, she doesn't actually have any other tasks on the wedding. So she can spend all of our time on that. If I want to assign a second resource and the most obvious second resource to assign is the groom, I'm going to select the groom and do the same thing, click Assign. And then I'm going to click on Close. And the bride and groom are now assigned to that task. And you can see in the Gantt chart, we have our initials Bride and Groom. Now one of the consequences of assigning the bride and groom to that task is to do with the amount of work involved in that task. I pointed out to you much earlier on in the course that when you look at Work, particularly for a new project, in the work column, there was a zero hours of work because we had no resources assigned to that task.

As far as Project 2019 is concerned, we've now taken a 10 day task, and it defaults to an eight hour working day. So 10 days for eight hours a day is 80 hours. And when I assigned two people



to it full time, that is 160 hours of work. So as far as Project 2019 is concerned, these two resources are going to do 160 hours of work on this particular task. Now when you do this, you effectively increase the amount of work from zero hours to 160 hours. And Project 2019 offers you alternative ways of dealing with the change that you've made. And this little exclamation mark over in that first column gives you a little drop down and offers your alternative ways of dealing with a situation where you've increased the amount of work in a task. As far as the wedding project is concerned, this is of little interest really because we're not really going to charge for the bride and groom's time.

So the costings, and in fact, the scheduling of this is not going to be changed by the fact that we've assigned two resources to that task. We're not going to say that because the bride and groom are working on it, it's only going to take half the time. We decided it was a 10 day task and that was it. We don't make it a five day task because two people are working on it. That set of arguments about work duration, and the amount of work in a task and so on, is what we're going to look at in the next section. And I hope that that section will explain to you why we get these options here. And in fact, which of these options is the right one to choose. But on this occasion, we're going to go for the default option, which is increase the amount of work but keep the same duration. When we do that, Project 2019 is quite happy, the warning has gone away. We've got our 160 hours of work, and we've still got a 10 day task and the bride and groom are still assigned to that task.

Now my main concern over the next few sections is going to be the scheduling of this wedding, and the scheduling of projects in general. And in fact, it's the assignment of Work Resources that will be a key factor. So for the rest of this section, I'm just quickly going to show you a couple of other ways of assigning resources. And we're going to assign those other two resources that we set up; one Cost Resource and one Material Resource, just to go through the basics of dealing with those. We'll be coming back to Cost Material resources later though, as I really do want to concentrate on Work Resources, and Scheduling now. So let's jump down to the photography section. And suppose I want to assign the photographer to the Select and book photographer task.

So essentially, I'm going to assign the cost of the photographer to this task. So let's jump up to that Resource tab, and select Assign Resources. And that brings up the Assign resources dialog box. And from here, it's very easy for me to just select the photographer and click on Assign. Now, don't forget that when I assign the photographer, we don't have a cost assigned, because it's a cost resource. And we haven't specified what that cost is until we actually assign it to the task. Now we're going to allow for the fact that the photographer we're going to use is going to charge right about 1500. So let's add 1500 as the cost. And you can see just behind the dialog box, we now have 1500 added next to the photographer resource. Having done that, I'm going to click on close, and we can see how that cost appears on the Gantt Chart. It is worth pointing out at this point that what you see on this Gantt Chart the words to the right of the blocks In this case, this is all customizable, and we will be looking at customizing the Gantt Chart later on in this course.

Now the last assignment I'd like to make here is the assignment of the rings. So I'm going to go to Select and buy rings. And I'm going to right click, and I'm going to use this third approach to get to my Assign Resources dialog box. And on this occasion, I'm going to choose Wedding ring.



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And I'm going to actually assign the number of rings because we're actually going to buy two rings. And you can see that as I do that if you look behind on the Gantt Chart, it now has two rings in brackets. Project 2019 is also recognized that each wedding ring costs \$500 and has put a cost in of \$1,000 for the two rings.

The other important thing to bear in mind here is that I could at the same time assign the bride and groom to this task as well. So if I select bride and hold down the control key and select groom, and click on Assign, I've now assigned them to this task as well. And I can now click on Close. So, I've now got three resources assigned to that task. I've got the bride and groom, which are Work Resources. I've got the bride and groom and I also have two wedding rings. So that's the basics of Assignments. In the next section, we're going to turn our attention back to Work and we're going to look at Work with particular reference to different types of task. That's it for this section. I will see then

## Video: Task Types

**Deborah:** Hello again, and welcome back to our course on Project 2019. Now that you know how to assign resources to tasks, the next thing we need to move on to is producing a workable schedule, given the resources that are available.

In order to do that, there are a couple of fundamental things that you need to understand. And perhaps the most important thing to understand with Project 2019 is the different Task Types that can be involved in projects. Now in order to illustrate this, I'm using sort of a dummy project. And this is a very simple project with three tasks in it; Task A, Task B, and Task C. And currently, their duration is two days. And there's one resource assigned to each task. And that resource is Jane. And Jane is also working for eight hours a day. So on Task A, Jane is doing 16 hours work, Task B 16 hours, and Task C 16 hours of work. And remember, the reason why task A is a longer bar, it spread over a greater number of days, is because we're not counting the weekend as working days. So effectively, she's still working two days, the Friday and the Monday.

Now let's suppose that I provide Jane with a little bit of help. So I say to Jane, hey, Jane, John is going to help you with these tasks. Now if I assign John to Task A, what do you think would happen? Now what may happen is you may look at it and say, "Well, obviously Jane is going to be able to get the job done in half the time". So instead of being a two day task, it's going to be a one day task. And obviously that is one option. But there are a couple of other options as well. One other option is that if John works on that task as well, it will still take two days, but they will do 32 hours work during that time. So with twice as much resource, twice as much work gets done but in the same time. Another possibility is that we still want to get our 16 hours of work done and we still want to do it in two days. But the fact that we've got both Jane and John working on it means they only need to devote half their time to it.

So we effectively have three different options. And those three options correspond to the three options you saw in the previous section When Project 2019 said you've changed information about resourcing on a task. So let me just show you that again, I'm going to right click on Task A, and I'm going to click Assign Resources. I'm going to choose John, and I'm going to click Assign. Now notice the little warning sign on the left there. Project has assumed that in assigning John, I still want to spend two days on this task. But having that second person, we're getting twice as much work done. So let's go over to the warning sign and click the default option there the middle one, "increase the amount of work but keep the same duration". The first one was "reduce duration, but keep the same amount of work". So in that case, we would have said well, we're still going to do 16 hours work. But because we've got two people on it, we can do it in a day.

The third option, "reduce the hours resources worked per day, but keep the same duration and work". So we say it's still a two day task, it's still only going to be 16 hours work. But Jane and John only need to work half the time each. Now I'm going to stick with the default option here. And what I want to do now is to show you why that was the default option. Let me open up Task

A. Now the reason that was the default option was because the Task Type was declared as a fixed duration. And very importantly, the box to the right of that Effort Driven was not checked. So what this says is that this task is a fixed duration task, it's a two day task. And putting more effort in on it will not automatically reduce its duration. So my default is to keep the duration fixed. And therefore if I add a resource to it, I'll just get more work done.

Now let me look at Task B. Now the way that task B is set up is as a fixed work task. So the amount of work is fixed. And all fixed work tasks are Effort Driven. So note that the Effort Driven box is checked, but it's grayed out so I can't change it. Now what do you think will happen if I add an additional resource to this task? It's fixed work. It's Effort Driven. So I'm going to assign John to it. So right click, Assign Resources, John assigned, and look what happens. I still get 16 hours of work done. But of course, now with the additional resource, it can be done in one day. If I go over to the warning on the left, and click on the drop down the default now, "reduce the duration but keep the same amount of work". Well, that's the default for a fixed work task, which is always Effort Driven. But I could say, "Increase the amount of work but keep the same duration".

So I could say, well, okay, it's declared to be a fixed work task. But on this occasion, I want to actually increase the amount of work having put the additional resource in. and then I have the option of reducing the hour's resources work per day. So it could say, Okay, I'll put a second person on it, it's fixed work. But because I'm not changing the amount of work, each of the resources only needs to work part time on it to achieve that amount of work. Now, on this occasion, I'm going to stick with the defaults, and the duration of that task has been reduced by one day. Now let's look at Task C.

Now task C is a fixed unit task. And currently, it's not Effort Driven. Now, the significance of the Effort Driven part is whether in fact, what we're trying to do is to do a certain amount of work, to put in a certain amount of efforts. And in doing that, with flexing with varying the number of people working on it, or the duration in order to get that amount done. If a task is not Effort Driven, then we're not trying to achieve that certain amount of work or put in that certain amount of effort. And if I put more resources onto a task, then all that will happen is that more work gets done. And as a task that's currently not Effort Driven, if I assign additional resources, and let's really go to town this time, let's go back into assign resources. So let's go to town this time and add all of them. So I'm going to highlight them all and click Assign and close. And now you can see that we're going to get a lot more work done with four resources assigned to this task, 64 hours of work.

Now, as usual, I've got the yellow warning sign on the left there. And you could choose a different option. But basically, we're getting the default, which is "increase the amount of work, but keep the same duration". Now, let me undo that particular change. And let's go back in now, and make it Effort Driven. Now, that means we're trying to achieve a certain amount of work, putting in a certain amount of effort. Now what happens if I assign those three extra resources? Given that it's a fixed unit, what do you think is going to happen? Well, let's see. Let's assign our resources. And we're going to assign everybody again. And what's happened is that the duration is reduced. So in half a day, four people can do that amount of work. Once again, of course, I get

the warning sign. And I can change that if I want to. But basically, as it's not fixed duration, putting on that extra number of people means that I can get the work done much more quickly.

As I mentioned, towards the beginning of this section, we're going to be doing quite a lot of scheduling from now on. And scheduling in Project 2019 can be quite complex at times and requires a bit of understanding of what's going on. There is a very useful help article; "How project schedules tasks behind the scenes", and it's well worth going through this help article. It's very useful, very well set out and it gives lots of very helpful information. Of course, I will be covering virtually all of this on the course and quite often in a little more detail than you've got here. But there is a section in here, and I think it's the fourth one in the list. How do you Task Types affect the schedule, fixed units, fixed work and fixed duration? And what will happen if you revise units, if you revise duration, if you revise what, and then gives one or two really good examples of what happens in different situations. So I do suggest that you take some time to go through this. And it will really help you if you can increase the level of your knowledge on scheduling in Project 2019.

And another important point here and I briefly mentioned this again, right at the beginning of the course. In Project Options on the Schedule page, there are a couple of very important settings. One of them is Default Task Type. Mine is set to fixed units. I find that this isn't something that I leave set the same way all the time. I often vary this depending on the type of project that I'm planning. Sometimes setting it to fixed duration or fixed work throughout the time that I'm working on a new project in particular, can actually save me time. But I've got it here set to fixed units. And another default here is New Tasks are Effort Driven. In my case that's not checked, you may find that you prefer your new tasks to be Effort Driven, or again, you might vary it from job to job. So that's it. We've covered the basics of Task Types. In the next section, we're going to start to look at scheduling itself. So please join me for that.

## Video: Scheduling Basics

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to start to look at Scheduling. And as part of this, we have a couple of fundamental things to do to our plan in readiness for actually coming up with a realistic schedule for the wedding.

Now, the first thing I want to talk about is the difference between Manual Scheduling and Automatic Scheduling. And as part of doing that, I just want to explain something about scheduling in Project 2019. If you want to take a plan, such as this one that we have here and schedule it manually, there will be nothing to stop you. Now, what I mean by scheduling it manually is that you choose exactly which tasks starts on which date, and you check that you've got the time to do it, that the resources are available, that your constraints and deadlines are met, and so on. So you can pretty much handcraft the whole schedule.

Now in some situations, you may have projects where that's exactly what you decide to do. But with a large project with a lot of resources and many constraints, dependences, etc. that would be a very, very large job. It would probably take you quite a lot of time to maintain that schedule, particularly if there's a lot of change involved. And particularly if, as the project starts, things start to, shall we say, not go according to plan. Largely speaking, one of the main reasons that people use Project 2019 is to automate the scheduling. Now of course there are many other reasons to use Project 2019, but the automatic side of scheduling is one of the most significant ones. And it's the one that we're going to be concentrating on quite a bit over the coming sections.

So my fundamental assumption about the wedding plan and indeed about the Bathroom Refit is that we're going to Auto Schedule them. Having said that, and as we're going to see with the wedding schedule, within an auto scheduled project, you may well decide to manually schedule some of the tasks. So for instance, in the wedding plan, we may well actually manually schedule the actual wedding date and fix it in time and not allow Project 2019 to change it. But the rest of the schedule, we may be quite happy for Project 2019 to auto schedule. Now one of the things that I haven't done yet, and which I need to do now is to resolve the question of when the wedding day will actually be. And at the moment, of course, because wedding day or task 48 has no predecessors, it's almost the first task in the project, which clearly is not correct. I really need to show that the wedding day is going to happen when everything else is done.

I know there will still be a honeymoon after the wedding date. But the honeymoon itself isn't actually in the schedule at the moment. We've only got the making the shortlist, and selecting the destination and booking the honeymoon. We don't have the honeymoon itself. So in effect, the wedding day is going to be the last task. Now one way of doing this would be to have other summary tasks such as catering, flowers, memories as predecessors of the wedding day. But often, when you're starting to get into the scheduling of a project, you decide that one or more tasks or groups of tasks can be separated out into significant phases. And what I'm going to do here is to separate out the wedding day, and I think the rehearsal, as well. And I think these are going to be considered the last phase of this project. And then what I can do is to say that this last

phase has its predecessor; the preparation phase, the phase when all the work on deciding on the venue, booking, flowers, etc., is all done.

So what I'm going to do is take tasks 47 and 48 that I have highlighted here and separate them out from the rest of the schedule and make them a separate phase. Now one of the things you need to be careful of here because I am going to do a cut and a paste which is something I haven't talked about much so far. And that is where you have tasks such as these two, which are sub tasks of, in this case, the wedding day summary task. In order to cut them and put them elsewhere, I need to stop them from being subtasks of a summary task. So having selected them, I'm going to Outdent them using the schedule group on the task tab. And I'm going to click the Outdent button. Now I get a warning and you're going to see this quite a few times these planning wizard warnings. And this one tells me that if I out dent these two, they will no longer be scheduled as part of the wedding day summary task. And in fact, they'll be rescheduled to start before the project start date.

Now, that sounds a little bit dangerous, but in fact, it's something that's going to happen from time to time, this sort of planning wizard warning. On what you can say with confidence in this case is that because I'm going to immediately reschedule those with a different set of rules, this particular planning wizard warning is not one to worry about. Because although they will be given a very strange date, it will be only for a very short period of time until I change them again. So I'm going to click on OK. And my tasks have now been out dented. Now know that the scheduled tasks are now right back to actually before the beginning of the project, which is clearly not when the wedding day is going to be. But we're going to change that in a moment. So now I'm going to cut those.

So now I'm going to select cut, I'm going to place my cursor in a row just below the end of the schedule, and I'm going to click paste, then once they've been pasted into place, they pick up the indentation, of course of the task above them task 49 in this case. Now I don't want them as part of the honeymoon. So I'm going to select both tasks, and I'm going to Outdent them. I get that same warning again about their scheduling. And again, I'm going to click OK to continue. And they're back to being scheduled far too early. Now, let me go back up to the attire task. Select it, and then do an insert task above that. And that is going to be my task, my summary task for the preparation phase. So let me change the task name. And we're going to say preparation phase. And then what I'm going to do is to select Attire, which is now task eight, right down to task 50. And I'm going to indent those to make them part of the phase.

And then for the wedding day task, which we have down here in task 53, its predecessor will be the whole of the preparation phase. So I'm going to put a seven in the predecessor column. And I now have a wedding day on August the 20th 2019. Now I know that's not right, but at least I've got a wedding day now, which is at the end of the wedding project. Generally speaking, if you're going to use phases in a project, it's a good idea to do that before you start scheduling partly for the reason that I've just shown you where it often makes it much easier to set up dependencies. Now I've got one or two other very small changes here, I'm going to change the name of task 44. It's commonly called Wedding Day. And I'm going to change this to Wedding Venue. And one

particularly useful thing to note is that wedding day is an individual task, and it has its predecessor as a whole phase. So you can really mix and match these dependencies.

The next thing we need to do is check that our Task Types are correct. Very often, when you're setting up a project, you will have thought carefully about Task Types. You'll have your default set appropriately, and you'll also want to make sure that any exceptions from the default are set up as well. While we've been setting up the wedding day project, my default has been set to fixed units as you know. But let me just demonstrate to you now, and bearing in mind what we looked at in the preceding section, that in this particular project fix units is not a good choice. So let's go to the Select and buy rings task. And let's suppose that the bride and groom look at that task, and it's a four week task. And they say well, it's not going to be a full time job for us to select and buy the wedding rings over that time. Let's say it's only going to take half of our available time. So let's go into assign resources. And we get the Assign Resources dialog box again.

Obviously, these two are assigned to that task but they're assigned 100%. And watch what happens when I reduce the bride's assignment to 50%. As you can see, the task becomes a 40 day task, the amount of work continues to be set at 320 hours. Now, of course, in this project, the bride and groom's time isn't chargeable. And we're working more on a notional idea of what proportion of their available time is being used on each task. So when we say the bride is 50% allocated, that's just half of the time that she's got available to work on the plans for the wedding. Now clearly, the idea is not here to extend that task. But just to reflect the fact that the bride's time on it is only going to be half their available time. So what I'm going to do is close this, and I'm going to undo that last change. And what I really need to do here is to set the Task Type for this and effectively every other task in the project to be a Fixed Duration task.

Now if I want to change a fundamental property of a task you've already seen, I can use the Task Information Dialog box. And I can also change a whole set of tasks by selecting multiple tasks just by holding down my control key and using the same approach. So what I'm going to do is select everything from Attire. I'm going to go all the way down to task 15, hold down my shift key and click and that will select everything between those two tasks. And then with the Ctrl key held down, I'm going to make other individual selections. So rehearsal, wedding day, if I scroll back up to the top, hold down control, and select those three as well. And I'm going to change each of those to be fixed duration. So if I click on Information on the Task tab, and go to the Advanced Tab, and make sure that I have fixed duration in the Task Type, and not Effort Driven.

Note that when you see just a black blob or a black square in a box, it means that you have a mixed type in there. So some are and some aren't. Now, you need to be very careful when you transfer what you're looking at here to the Bathroom Refit project. Because, the Bathroom Refit project has a situation with Task Types that are a little bit different from what we have here in the wedding project. So let's click on OK. And that's all fine. Now, let me go back to that wedding rings task. And once again, I'm going to right click and go to Assign Resources. And once again, I'm going to change it to 50%. And watch what happens this time. Look at the duration and also look at the work. Now what happens is the amount of work is reduced, the duration has not changed, the bride is shown at 50%.



Now if I reduce the groom to 50% as well, you'll see we're not changing the duration. But we are showing the each of the resources is only needed for 50% of their time over that period. So now we've got what looks like a better project. And you may think that we're coming up to being close to having a workable schedule. But in fact, the schedule we've got is going to present some major problems. And as you can see here, for example, if you look at the second half of April, that the major problem is going to be that we have far too many things going on at once. And given that the bride and groom are going to be doing a lot of this work themselves, we're going to find that they're going to be over allocated on some parts during certain periods of this project.

So what I'm going to do now is to quickly go through and allocate the bride and groom to all of the tasks in the schedule that they're going to be responsible for. And you can start to see how we have a scheduling issue. So here I've allocated the bride and groom, sometimes full time, sometimes with the proportion of their time. And in the left hand column, you can see the little red symbol that indicates that that particular task has over allocated resources. Now if I look at the Resource Sheet, I can see that the two resources that have over allocation problems that means that they've got too much to do over a period of time are the bride and the groom, which is no surprise. And how we resolve those is what we're going to look at in the next section.

Now as I mentioned at the beginning of this section, it's in our interest to be able to automate the resolution of over allocation of resources. But in order to do that, it's also important to understand the context within which we're working. So for instance, which things we can delay and which things we can't and which things we'd prefer not to delay if it can be avoided and so on. But they're the issues that we're going to look at in the next section when we're going to look at leveling resources. So please join me for that.



## Video: Resource Leveling

**Deborah:** Hello again, and welcome back to our course on Project 2019. We're starting this section from wedding five, and we're going to look at Resource Leveling. The way we left things in the preceding section is that I had assigned the bride and groom to tasks for which they had a level of involvement.

And we can see that both of them are significantly over allocated. Particularly during one period in the second half of May, where they have a lot of different things to be doing all at once. You can see the specific tasks that are over allocated with the indicator in the left hand column. And I pointed out to you in the preceding section, if we look over at the Resource Sheets, the two resources that are marked in red are the ones that are over allocated, so the bride and the groom. And of course, in something like this project, we don't really have the option of say having a couple of extra brides or a couple of extra grooms to spread the work over. In another project such as, for example, the bathroom refit, if the tiler or the plasterer or the bathroom fitter had too much work to do, you could possibly get a second person in to help but that isn't really an option for us here.

Now one of the things that I mentioned in the preceding section, which of course is a very important thing is to make sure that you have your default Task Types set correctly. So let's just take a look at that now. On the Schedule page in Project Options in Scheduling options for this project, note that I have this project selected, so wedding five. And the default Task Type I now have is Fixed Duration. Note also that I have the checkbox, New Tasks are Effort Driven, not checked. Now, if I go back to this drop down here for all new projects, my overall default is still a default Task Type of fixed units. So in the absence of a specific change for a specific project, that is my overall default; Fixed Units. And you'll obviously need to set that up in the way that suits you.

Now, it's very likely when you're planning projects, and as your projects progress, that you will experience over allocation of resources. And there are a number of ways of resolving these over allocations. And we're going to be looking at quite a few during the course. But before we do just one very important point to make is this, there isn't a universal way of resolving over allocations. The resolution of over allocations almost always involves understanding the underlying project or the underlying business that your project relates to. Now one of the key things you normally need to decide is whether to resolve over allocations manually, or automatically. Both of them have a place. And it may well be that you work on the principle that as far as possible, you resolve over allocations automatically, but that you'll revert to manual methods where necessary.

It actually wouldn't be that complicated for us to go through and resolve all of the over allocations in this particular plan manually. But it can be very time consuming. And automating this process as much as possible, is usually the best approach if you can, in fact, automate it successfully, which is not always the case. The first thing I'm going to do is to demonstrate a manual resolution of an over allocation. And I'm just going to take the first over allocation here, select wedding dress, and I'm going to show you very quickly how you can resolve this

manually. Now the fact that Project 2019 has put that red marker there that says that this task has over allocated resources. So it tells you that there's a problem. And it also says right click for options. And we're really interested in the top three options.

Now I'm going to start with the second one here; Fix in Task Inspector. We're going to look at the Task Inspector later in the course. So we'll come back to that one. And the third one is; Ignore problems for this task. In the same way that in the preceding section once or twice, I said let's ignore that warning from the planning wizard. There will be situations where you have an apparent over allocation but either you know, it's not really a problem for reasons I'll look at later. Or you may know that you're going to fix that problem later and don't need to deal with it now. So you do have the option of ignoring a particular problem related to over allocation.

Now the first option is the one that you'll very often use when doing Manual resolution, and it's Reschedule to an available date. And what you're basically saying to Project 2019, is I want you to find a date when this task can happen, And I don't then have an over allocation against it. And that's what we're going to do here. Now notice the task has been rescheduled. And also notice the little red mark from the left column has gone. And also note that the date, the end date of our project has pushed right out quite a long way, actually. So we've pushed everything related to the wedding dress out to the right, because of course that one task, select wedding dress had a number of successes, including order dress measurements, and fittings. And of course, that delays the Attire Summary Task, which in turn delays the whole of the preparation phase. And if we look all the way down here now, we can see our wedding date has moved to September the six.

Now we could go through each of those over allocated tasks and resolve it manually in that way. But as I say that would be time consuming. And generally speaking, we'd like to automate it. So let's look at how we might possibly do that. Now you might be tempted in this situation to undo what we just did, and start again with an automated version of the process. But before we do, I want to demonstrate something else, I'm going to change the view. And the view that we're going to use is one specifically that we use when we're working on leveling resources. So I'm going to click on Other Views, More Views, and I'm going to choose Leveling Gantt. Now the Leveling Gantt View effectively shows you what Project 2019 is doing in terms of leveling the resources on a project.

Now when you apply a new view like this, it's very often the case that the timescale is all completely wrong. So let's go back up to the View tab. And in the zoom group, click on Entire Project so that we see the project on the right there. And you notice in particular, this little colored bar here against select wedding dress. That bar represents the leveling delay; the amount of delay that was added to that when we did the manual leveling just now. And in fact, we have a set of tools to handle leveling delays. Now before I use one of those tools, look at the table on the left, let me just make the name column a little bit wider. And there's a column there; Leveling Delay. And the current leveling delay on that task is 42 e days. And E days are elapsed days. So when we did the manual Resource Leveling just now, what Project 2019 had to do was to delay that task by 42 elapsed days. And that's the currently applied Leveling Delay to that task.

Now also notice that its successes, which were also delayed, were not delayed because of leveling of themselves. They were delayed because we delayed the Select wedding dress task that had the resource over allocation. So their leveling e days are set at zero days, they weren't delayed because of a leveling problem. They were delayed because they are successors of a task that had a leveling problem. Now if I wanted to put this particular project back to the way it was, I could obviously do the undo. But I can also go to the Resource tab and click the button just here; Clear Leveling in the leveling group. And watch what happens if I clear the leveling. I get an option of clearing it from the whole project or the entire project or just the selected tasks.

And as I've only done one bit of leveling here, I might as well stick with the entire project and click on OK. And basically what happens is the task goes back to where it was before. And now if I revert back to Gantt Chart View, it would look exactly how it looked before. And of course I've got my over allocation indicator on the left there for task 10. Now before we look at automatically leveling, let me just point something else out. We asked Project 2019 to reschedule select wedding dress to a date where the resource wouldn't be over allocated. You can reschedule these things completely manually yourself. So there will be nothing to stop me going into any of these tasks and changing the start and finish dates. And I could go through all of them and change the start and finish dates manually scheduled the manually change their Task Types from auto scheduled to manually scheduled, if necessary, and fix any of these dates in time if I wanted to.

But what we want to look at now is the opposite of doing that. And that is putting everything in Project 2019 hands and seeing if it can resolve these over allocations automatically for us. So I'm back in the regular Gantt Chart View. And I go to the resource tab. And in that level group that we just saw, now there are two buttons there. There's a Level Resource, and a Level All. Level Resource gives me the ability to level one or more selected resources. So if all I wanted to do was to level the bride and make sure she's not over allocated, I can select one resource, and then click on level now. And Project 2019 will try to level the bride over the project so that she's not over allocated at any stage. Now, it's important to recognize it will try because it may well be that the constraints, the deadlines, the dependencies, that might mean that she cannot be leveled. There are going to be situations where she's just got too much to do over a period of time.

So you may find in many of the projects that you can't completely resolve over allocations, or should I say, not in a way that you're 100% happy with. So that's leveling an individual resource. The Level All button basically levels all resources. And if I click on Level All, I may possibly get one or more warnings. Now I haven't at this stage, which is good news. And there we are. Now, as you can see, most of the red markers in the first column have gone. And our wedding day is now on January the 23rd 2020. So the dates have got pushed out a long way. So overall, our schedule is coming together. And we've got some very good aspects of the schedule now because for example, we have the reception and venue identified, we have the wedding venue identified. And if they're both done before we send out the invitations, that's pretty good. We also have the wedding itself registered and organized. And we also have the wedding itself registered and licensed early on.

But when we look at things like Caterer, Florist, Baker, so on and so forth, we're making the shortlist and then there's a long time before we book those people. And the booking is probably a little bit too late in the day ideally. We seem to have left the bookings much too late in the process. Whereas with other aspects such as the wedding rings, maybe they're roughly in the right kind of place. But quite often when you look at the schedule after leveling, you'll find that resulting schedule doesn't really tie in with the ideal sequence of events. And there are a number of options you can apply when leveling to help you to get to the kind of sequence of events that you want while still resolving any over allocations. And the use of those options is what we're going to look at in the next section. So please join me for that.

## Video: Leveling Options

**Deborah:** Hello again and welcome back to our course on Project 2019. In the preceding section, we did a little bit of Manual Resource Leveling in order to try to overcome over allocations of the bride and groom's time in our wedding plan.

Now what we're going to do in this section is to look at automating the leveling of resources in Project 2019. And primarily, we're going to look at the options that are available when you're doing this. Now before we start, I should point out that when we did the leveling before, we came up with a schedule that indicated a potential wedding date of August the 20th. Now that's a good starting point, I think we may go for a date a little bit later than that. But first of all, we need to make sure that all of our issues are overcome. It may well be that it appears to be a good date, and the plan appears to work. But until you've actually looked at any outstanding issues, you can't really be certain that the end date in this case, the wedding date, is going to be achievable.

The other thing to bear in mind is that with any project, you are dependent on making sure for example, that you have all of the tasks, dependencies etc. in place. That your estimates your time estimates, your resource estimates are good, and that your resources are going to be available. Now we're going to take a look at some of the things that might go wrong a little bit later on in the course. But for the moment, let's see that our resources are available. And we're pretty much scheduling this project on the basis that given that a lot of it is down to the bride and groom, they're going to be very committed to getting the wedding running to schedule. And that therefore, they'll be more than happy to put in a bit of extra effort to deal with any problems that arise.

Now the first thing I'm going to do is undo the leveling that we did in the previous section. So if I go to the resource tab, in the level group, there is an option called Clear Leveling. Now look carefully at the schedule, particularly around the area of select and order wedding dress. So now we're back to where we were. Now what we're going to try and do is to level automatically. And before we do that, let's look at the leveling options. Now the Resource Leveling dialog has many options, and we're going to look at a few of them in this section. One or two, we're going to save until later on in the course. Now first of all, do you want leveling calculations to be automatic or manual? Now I normally set this at manual, because whilst having Project 2019 automatically deal with leveling can work quite well, when you're setting up a project, it can actually be a little bit annoying, because you get to a situation where it's leveling resources. And you're thinking to yourself, well hang on a minute, I've got loads more tasks and resources to put in yet.

So you're doing work that is really a waste of time, because until all of the project or the bulk of the project is in there. There's not really any point in doing this. So I tend to go for manual leveling calculations. The next option look for over allocations on a default day by day basis. You can also have minute by minute, hour by hour down to month by month. Now this is a very important option. And I'm going to explain it to you with an example. Let's suppose you have somebody doing a task for two hours a day over the course of a week. And maybe it's the only

job they've got to do on a project. But on a Wednesday, you need them to do a full day task. So they've got an eight hour job to do on Wednesday. If you have over allocations being looked for on a day to day basis, Project 2019 will look at Wednesday and say they're over allocated because they've got two hours on the first task, and eight hours on the second task. That's 10 hours, that's too much work.

But if instead I said on a week by week basis, what Project 2019 will do is to say let's set up that first task a week, five days, two hours, that's 10 hours. Let's add the time for the second task. That's eight hours. But if instead I said on a week by week basis, what Project 2019 will do is to say, Okay, let's set up that first task a week, five days, two hours, that's 10 hours. Let's add the time for the second task, and that's eight hours. So that's a total of 18 hours. And I've got plenty of time in a week to do 18 hours of work. So as far as Project 2019 is concerned in that case, they're not over allocated. Basically what Project 2019 is doing is leveling out or evening out the work.

Now in case of the wedding, well, we're not really that concerned about exactly what hours are being worked. The bride and groom have indicated the portion of the time they need on each task. So I'm going to be quite happy with week by week leveling. The next option is the Leveling Range. Do I want to level the entire project? Or do I want to just level a certain date range? What can sometimes happen when you're working on a long project is you may, for example, have the project in phases. And over the next phase, say the next few months, it may be important that you have the resources leveled. But for phases of the project, which are much further off into the future, leveling resources might be a bit of a waste of time, because you don't really have the detail in yet.

So leveling resources over that period really is a waste of time, and will flag problems that don't really yet exist. So in that situation, you might want to choose to say just the next few months to level. On this occasion, though, we're going to leave it at Level Entire Project. The next option we're going to look at is the Leveling Order. But in fact, I'm going to cover that last I want to look at the checkboxes below that first because I'm going to briefly review those. First of all, there's an option level only within available slack. Now we're going to talk about slack and the critical path later on in the course. But basically, if I check that box that says Level only within available Slack that means that leveling will be done in such a way that the end date of the project is not delayed.

Now this may well constrain how successful leveling can be. But it does mean that we can be certain that this isn't going to cause a delay in the project. At the moment this is unchecked, so any leveling we do may well delay the end of the project. The second option leveling can adjust individual assignments on a task. Rather than move a task and of course, the assignments associated with it for all of the resources that are assigned to the task. It can adjust individual assignments. So it could take one resource and adjust that resources assignment on a task in order to overcome an over allocation issue. That's currently checked so we're going to allow that. And the third option there, leveling can create splits in remaining work.



You may recall that when I did that manual leveling exercise, and it moves some of the tasks associated with Attire out to the right, you may have noticed that one of the tasks was actually split into two with a sort of dashed line between the two halves. What Project can do is to split outstanding tasks and say, we're going to do part of the job, then we're going to take a break from it, then we're going to do the other part of the job. And this is on the basis that in that gap in the middle the resource is working on the task and needed to do something else. Again, we've got this text so it's allowed. The fourth option, Level resources with the proposed booking type is one we're not really going to cover on this course. You can really have two types of booking, you can have a Proposed Booking and a Confirmed Booking.

Now as I say the use of these booking types is outside the scope of what we're covering on this course. But later on in your use of Project 2019 When you start looking at Proposed and Confirmed Booking types, that's an important option to be aware of when you're leveling. The fifth option dictates whether leveling can be applied to manually scheduled tasks. Now generally speaking, by default, we don't level manually scheduled tasks. But if you do want to include manually scheduled tasks, then check that box. So that's the group of five options, one or two of them will come up again later on in the course. And let's concentrate now on the Leveling Order. In Project 2019, there are three options for Leveling Order. And by default, the Leveling Order here is Standard.

And with Standard, what basically happens is Project 2019 uses all of the information you've given it about resources, tasks, dependencies, constraints, etc. And does the best job that it can to level all of the resources on the project. But you do have two other options. These two options are very different. But as I'm sure you appreciate by now, even using the same terminology and looking at the same types of problem on two different projects, you very often take a very different approach to solving a problem. Now the first other option we have is called ID Only. And the way that ID Only leveling works is the leveling is done strictly in terms of the ID numbers. They're the numbers on the left that you can see in the table in the Gantt chart. So task one, task two, task three, and so on. The higher the number, the more likely it is to be leveled.

I mentioned very early on in the course that there is absolutely no reason for you to put the tasks here in if you like chronological order, or any other order for that matter. But many people do put tasks in an order. Whereby if leveling is to occur, then the ones that are if you like, further down the schedule, the ones with the higher ID numbers will tend to be leveled to be delayed the most. Now that usually corresponds with the general concept that the tasks near the beginning of the schedule are the ones that are done first, and the ones near the end of the ones that are done last. So with ID Only, that's the rule that Project 2019 follows.

The other option is Priority and then Standard. And what happens with this is that you give Project some guidelines on the basis of Priority. So let's suppose that we have a particular task that we definitely don't want to be delayed. We know it's involved in an over allocation issue, But we don't want it to be delayed. What we would do is to give that task a higher priority than all of the other tasks. Similarly, if we have a particular task, wherever it was in the schedule, it wouldn't matter whether it was near the beginning or the end. Wherever it was, we would give



that task a low priority. And that would tend to reduce its chance of being delayed as part of the leveling process.

So first of all, what I'm going to do is to try just to use Standard Leveling, and see what sort of results we get. So I select Standard, and I click on Level All and Project 2019 comes up with a new schedule. Now you're going to see some problems with the schedule straightaway. The number of red over allocation indicators is greatly reduced. So that's good. You won't necessarily always see them all disappear. But there is certainly a lot less than there were before we did the leveling. But let's look at our end date. I scroll down and take a look at the end date. Well, our end date is now December the 9th 2019. So currently, the way the schedule is planned with all the tasks that we have in we're not going to be finished until December the 9th 2019 but let's have a look at some of the issues because there are some issues in here.

For instance, if we scroll up to Catering and Make Caterers Shortlist, you can see that there's a huge gap between Make Caterers Shortlist, and then Book Caterer and Finalize Menu. So there's clearly some work needed there on the scheduling, because we don't want that huge, long gap. But perhaps even more importantly, if we scroll up and take a look at the order of the dress, we can see that the ordering of the dress and the measurements and fittings and the attire generally, is being left right until the very last minute, if you look at those dates up there. If you imagine that the wedding is in the middle of December, we're not doing any of these things related to Attire until right up to that date.

So obviously, we're going to need to do something about that because that's way too late in the day to be making decisions about the attire. So Standard Leveling hasn't really done the job for us on this occasion. So let's undo that. And let's try setting one or two priorities. Now one of the things that takes a little bit of getting used to when you're doing leveling is that there are quite a few options. And although I'm going to demonstrate Priorities now, you may alternatively choose to add things like constraints that they must start on a certain date, or even make the manually scheduled tasks. But let's suppose the first thing that I'm going to try is to say, well, the most important thing to get started with is to sort out the guest list and the invitations. And of course, as part of that, we're going to need to book the venues so that we can send out the invitations. And we're going to need to have decided on the actual date and so on.

Most of that is covered by the dependencies that we've already set up if I just make that a little bit wider. But let's go into Make Guest list and change its priority. So on the General tab, we have a Priority set to 500. So let's change that to 600 and click OK. So we're making that the highest priority task, and then we're going to do the same for sending out invitations. Let's make that 600 as well. And then let's go into Leveling Options and choose Priority Standard and click level. And let's see what happens. So now if we scroll down to wedding day, so we can see that date is now slightly earlier, it's December the 6th 2019. So we've actually come up with a slightly better solution.

So having sorted out that particular issue, we might turn our attention now to the Attire and give that a higher priority than it currently has. And maybe also look at some of the other tasks, perhaps ones which could do with a lower priority, so things like the florist. We may decide that

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the florist is one of the last things we would need to do. But in that way with selective use of priorities, we should be able to come up with a pretty good schedule.

So what I want you to do next is to give you a chance to try a little bit of Resource Leveling and scheduling now on the Bathroom Refit project. So we're going to do that in exercise four and that's going to be covered in the next section. So I'll see you then

## Video: Exercise 04

**Deborah:** Hello there, and welcome back to our course on Project 2019. In this section I'm going to set you exercise four. Now this is a reasonably straightforward exercise. But it takes a little bit of explaining.

Now I'm starting you with a version of the bathroom, refit project version 04 A. and, I've set up some resources. But I'm only really concerned here with the resources and the second part of the project. So for the first two phases, the past I'm effectively going to do myself where I'm not going to do things like look into the color scheme and the tiles and all those things. I'm not really too worried about resourcing those. In fact, with those, I've generally set up a task type to Fixed Duration.

But later on in the project for the implementation phase, and also the completion phase, I've allocated some resources. These are people I'm going to employ to do the work on the refit. For me. As you can see, we have some resource over allocation issues. But if I just look now at the Resource Sheet, you'll see that I've set up an electrician, a plumber, and a contractor. The contractor is basically a general builder. So somebody who's able to do most of the jobs that I'm going to need to get done during this bathroom refit. And as you can see, it's the contractor who is over allocated.

Now the first thing I'd like you to do is to move the start date of the project to tomorrow. That is your tomorrow, not my tomorrow when I'm recording this course, But your tomorrow. As though you were actually going to start doing all of this work from tomorrow. Now when I move my start date to tomorrow, I finish up with an end date of May the first. Now clearly, it's very unlikely you'll finish up with the same end date as me. But make a mental note of that end date, because the next step is to level the resources. And in order to do that, I want you to use the standard leveling. And I want you to do it in such a way that you're quite happy for the refit complete date to move out to be later on. And I want you to do it on a week by week basis. So that's the first exercise.

Now when I do that my refit complete day goes back about 10 days or so. And you should find that yours goes out by about 10 days as well. So given this one contractor, and given the electrician and the plumber, and the plan that I've got here, I can stick with those resources. And it will delay the end date by about 10 days. So that's the first part of the exercise. If you do get a slightly different date to that bear in mind, it could just be the way that your weekends are falling, then what I want you to do is I want you to clear the leveling again.

Now what I want you to do is to level those resources on a day by day basis without changing the end date. So the end date is still going to be whatever you started, whatever your end date is, if you like the end date you got straight after you moved the start date of the project. Now the obvious question is how am I going to do that? How am I going to keep the same end date and clear all of the over allocations? The answer to that is you're going to use more contractors. The question for you is how many more do you need to use? My answer to that is in 4 B. Good luck with that and I'll see you in the next section.

## Section 8 – Views

### Video: Views - Part 1

**Deborah:** Hello again and welcome back to our course on Project 2019. In this section and the next section or two, we're going to take a look at Views in Project 2019. You've already seen a few different Views such as Gantt Chart View already. We're going to look at quite a few others in the next couple of sections. But I'm also going to introduce you to some general aspects of Views that will help you as your knowledge and use of Project 2019 develops.

Now in a little bit of a break from tradition, we're going to look at the exercise; the Bathroom Refit exercise version 04 B. And this is my answer to exercise four during this section. On one of the reasons for doing that is I want to explain a couple of things about my solution to exercise four. Hopefully, your solution to exercise four will have been pretty similar to mine. But I'm going to show you one or two tools that probably would have helped you to do the exercise a little more easily. But first of all, a little reminder about some basic features of Views.

Now we're currently showing Gantt Chart View. If you look on the View tab, the leftmost button Gantt Chart is highlighted. That's the one that's currently in use. Don't forget, you've got those specific buttons down at the bottom right hand end of the status bar that let you switch between some of the more commonly used Views. And you've also got a Zoom control down there as well. Now up on the ribbon, up on the View tab in the first two groups, one of them says Task Views and one of them says Resource Views. Now typically, you'll use the views in those two groups for those specific purposes. So clearly, the Views that you're most likely to use for tasks are in Task View. And those for resources are in Resource View.

However, if you click on Other Views, you'll see a complete list of Views from the More Views list just here. You'll find that as you use Project 2019, it will update some of the Views that are on the drop down menus based on your use of them. Now at the moment, I'm looking at More Views in the Resource Views group, you can see that one of the views there is Gantt Chart. So as you can see, I can access these Views from various different places. Now the other thing to remember is that many Views involve a split of the screen. In fact, some of them involve not only a vertical split like this one, but you can have a horizontal split, which we're going to look at in the next section.

Now it's pretty straightforward to move that split line to change how much information you can see on the table on the left here, or in the right of the chart. So, you can just drag and drag it back in again, depending on how much of each one you want to see. So that's entirely up to you, but very easy to change the way that you're viewing the Gantt Chart and the Task list. You can also change the width of any of the columns. So for example, if you decided that the predecessors' column here was maybe too wide, if you put the cursor to the right of the dividing line in its header and click with the mouse, when you get that double headed arrow, you can just click and drag in. Or you can drag out depending on how wide or narrow you want that column. And if I

wanted for example, to make the start date a little bit wider, I could again get that double headed arrow, click and drag out to the right and I've made the start date wider. So that's how you can adjust what's on the left hand half of the View.

But now let's take a look at a completely different View related to Task. Let's go into Task Usage View. In Task Usage View, what you have is a list of the tasks and for all the tasks where resources are assigned, it shows how much resource is used. Now if you remember with the Bathroom Refit project, the first couple of phases don't have any resources in use. But as we get down into the Implementation phase, we can see each task so let's say for example here task 43 got existing bathroom that has a contractor assigned to it. Now I'm going to make the Task Name column slightly wider. But what you can see here is the amount of resource that's used on a particular task. So let's take for example the Got existing bathroom again.

Now the resource used is a contractor and the amount of work is eight hours and we can see it in the View on the right that where eight hours occurs, it's on Friday, March the 29th 2019. So here we can see where our resources being used. But not only can we see where the resource is being used and how much of it is being used, we can also see various subtotals. So for instance, we have Preparation, which is task 41. And the totals for preparation is shown here by each day. So on Friday, we have eight hours, Monday, eight hours, Tuesday, 24 hours, so on and so forth. Now, the 24 hours on the Tuesday is made up of eight there, eight there, and eight there. So that's how we get to our 24. So you can see how the work that's being done is broken down by Task and by Resource.

Now, sometimes when you're looking at a Task Usage View, the amount of information can actually seem quite overwhelming. The Bathroom Refit is not a huge project. But already as we scroll through time and through the tasks, you can see just how much is going on and how much work is being done. This is a situation where using the outlining that I showed you earlier on in the course, can be very useful. So let's go up to the Data group still staying on the View tab, and click on Outline. And let's say that we only want to see level two. Now with level two, we only see the level two tasks. However, if we look at where the work is all happening, you'll see the totals for each of those tasks. And of course, if you want to, we could go back to outlining and select level one. And now if we go back up to the top here, you'll see the Implementation phase, and how much work is being done on the overall phase on each day. And also note right at the top, you can see how much work is being done overall on the project.

So you can see how we can control the level of detail that we can see in Task Usage View. And if we turn our attention now to what we call the Time Phase Data on the right, we can do quite a lot there to customize the view to our specific requirements at any time. If you look up on the View tab, and in the Zoom group, you can see we have a control called Timescale. And currently, days are selected. Now there's quite a few other options in that drop down. So let's take a look at weeks for example. And there we can see on a week by week basis how much work is being done. So we can see our totals for each week. Now when you make a selection like that, what you finish up with quite often is pretty much a whole project squashed into a very thin amount of space. And you may want to widen things out or see a little bit more. And there are quite a few other options with zoom that I want to take a look at next.

One of the most useful ones of all is this one just here Entire Project. Note the ScreenTip description; “update the views of the entire project is visible on the screen”. Now that will work in any view where you've got Time Phase Data. So it starts at the beginning of the project. In this particular project, the first two phases, we don't have any resources assigned. So we've got no work being done. But we do have as we scroll across the recorded work in the latter part. Now you also have a Zoom Control just here. So you can do things like zoom in, or you can zoom out. Often when you do that, you might well lose sight of exactly where you are in terms of the project, you might have to use the scroll bars on the right or at the bottom in order to bring everything back into view.

The other thing to notice here, and this can be a little bit unnerving at first is that sometimes when you do a particular View, like Entire Project, what Project 2019 does is to adjust the Timescale to what is sometimes a strange setting. So for instance, in doing what I've done there, the Timescale is now five days. So it's doing it in chunks of five days, which is a rather strange unit of time. Although of course, it copes with it perfectly well. These totals of work will still be completely accurate. Now sometimes that sort of thing can be a little bit annoying. There is ultimately though a way that you can adjust Timescale where you can pretty much achieve whatever effect you want to achieve. So let me show you how to do the ultimate adjustment of the view of time on the right there. If I right click over the heading one of the options there is Timescale.

That brings up the Timescale Dialog box. And you can have up to three tiers of time. So you can see their top tier, middle tier, and bottom tier. And currently in Timescale options, I have “show two tiers”. So let me just change that to three tiers. And then I'm going to set each of those three tiers by selecting the appropriate tab in the dialog and then saying what I want to show in that particular tab. At the moment, don't worry too much about non-working time, we'll just concentrate on the first three tabs. So in the top tier, for my units, I'm going to put quarters, so I can then choose how I want those quarters labeled. And the default there is Quarter one 2009. Let's suppose instead that I want Q109, Q209, so on and so forth. And how many of them do I want them to time? Well, I'm just going to do them one at a time. And remember what I said just now about three days? Well, if you wanted it marked in three days, or three quarters, you'd say three of them in here. You can also say how you want those markers in the header there aligned, and I'm going to stick with left aligned. And very importantly, you can also scale the view, and I'm going to show you that in a moment.

So let's go to the middle tier. And for middle tier, we're going to keep it on months. And we're going to say January 09 is our label. And I'm happy for it to be left aligned. And I'm going to say I want to count of two. And let's go to the bottom tier. And here we're going to have weeks, I'm going to change the label to this format. And we're going to have a count of one. And I'm going to align these ones to the center. Now there's a preview down at the bottom here, which gives you an idea of what the whole setup is going to look like. So let's give that a go. So you can see it's made quite a substantial change. Now that's probably overdoing it a little bit. But hopefully you get the idea from that, that you can modify the way that you're viewing things in that window.

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So just to recap, I have my timescale ordered by quarter at the top, then by month, and then by weeks. And not only can I adjust that in a very flexible way, but I can also scale it. So let's go in and scale this now. Let's suppose that I think well, actually, that's a little too wide, I need to cover a longer period. So let's right click again and bring up timescale. And I'm going to select the top tier, and currently it's at 107%. So let's go for 75% and click on OK. Now as you can see that I've made that adjustment. And that looks a little bit better, I can see a little bit more information on the screen. Now you can use that approach to presenting Time Phase Data on the right there, labeling, scaling, etc., up to three time scales on any view that has Time Phase Data on the right. So we've done all of this in Task Usage View. Clearly you could also do exactly the same thing in Gantt Chart View as well.

So in the next section, we're going to take a look at Resource Usage. I'm going to talk a little more about the answer to exercise four. And then I'm going to show you how to split the view horizontally and how it helps you when you use Project 2019. But that's it for this section. I will see you in the next one.



## Video: Views - Part 2

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to continue looking at Views. And we're going to start by looking at Resource Views.

Now I'm still looking at exercise 04 B, and I'm going to go back into the View tab. And in the Resource Views group, let's first of all look at the Resource sheet. Now, this is often the view we use to set up our resources. And of course, it's got a lot of the information about each resource on it. And will also often contain helpful indicators such as over allocation indicators. So that one's pretty straightforward and something that we've looked at before. So let's jump to the view above it Resource Usage. And Resource Usage View is sort of a complement of Task Usage View. And what Resource Usage View gives us is a list of resources. And then for each resource, a list of the tasks that that resource is working on.

Now as usual, there's a certain amount of readjustment needed here in order to make the columns and the split view a little bit more helpful. So I'm going to quickly do that. And you see that the first resource listed is Unassigned. So the Unassigned tasks, and those are the ones that don't have any resources assigned to them, that's really quite a long list on this particular project. As you know, the first two phases I haven't yet allocated any resources to. But if I go down now to the main body of what's in phases three, and four, I have three resources; Electrician, Plumber, and Contractor. And for each one, I can see a list of tasks that have that resource working on them.

Now this can be a very useful facility for getting a list of the tasks that each resource is working on. And of course, you've got the work hour shown on the right there. In fact, the top of this section, the unassigned section, is often very useful, because it will basically tell you which tasks you haven't got any resources assigned to as yet. And very often, you'll want to go through that and make sure that you haven't missed anything. The right hand half of this particular view is a conventional timescale. So it shows the time phase data on the work for these resources. And of course, you can customize that in the way that I showed you in the preceding section. Now, you probably would have found this a very useful view to use to help you with exercise four. But there's another Resource View, which can be very helpful when you're looking for over allocations and how to resolve them. And that's the Resource Graph. So I'm going to click on Other Views. And one of the items listed there is Resource Graph.

Now, this really is quite a different way of looking at resources on a project. The left hand of the display shows a little panel for a resource in this case Contractor, and you step through the resources using the scroll bar at the bottom. So you can see as I move this scroll bar, it changes to Plumber, move it again, Electrician, back to Plumber, back to Contractor. Now if I use the scroll bar on the right, it takes me through the time scale of the project. And what you'll see is the workload for the Contractor resource in graphical form. Now, let me just jump back to the resource sheets. And of course, we solved our over allocation issue by having three contractors. That 300% there denotes three contractors. So let's go back to the situation where we only had

one contractor, so we need to take this back to 100%. And you can see my over allocation now pops up. So let's go back to the Resource Graph.

Now you can see how this Resource Graph here would immediately have shown you where your over allocation problem was. I'm just going to zoom out very slightly, and you can see that the contractor is over allocated. And you can see exactly where the contractor is over allocated as well. So this is a very good view for identifying where over allocations occur. So I've introduced you there to a couple of other important views. There are many more in Project 2019. If I click on Other Views, and then on More Views, I get this more views dialog where you can access the many different available views. We're going to be looking at some more of those in the course, but I strongly suggest that you work your way through those and have a little experiments. And you can create your own views. You can copy a view as a starting point for a custom view, and you can edit the definition of a view. So as your use of Project 2019 develops, it's a good idea to find out about customizing views, because it can really save you a lot of time and effort.

Now what I want to look at next is splitting the view. So I'm going to go back to Gantt Chart View. And I'm going to go to the split views group on the View tab, and I'm going to click on the details checkbox. And what that does is to split my view into two horizontal parts. The top part is still the Gantt Chart. And the bottom part is now the Task Form. Now the important thing about this is that the Task Form will show the task information for the selected task in the Gantt Chart. So you can see that I've selected task five select style, and I can see all of the information related to that task, including things like any predecessors. Now let me go further down the project and select Prepare for flooring. And what I actually see in the Task Form is I see the resource names here. So the contractor is the resource for this particular task. And also see the predecessors just here.

Now what you see in this Task Form is something that you can choose. So you can decide which particular information to show in this Task Form. And I'll come to that in just a moment. But if I use these next and previous buttons, they'll take me through the tasks in the project. So I've currently got Prepare for flooring, which is task ID 45. Let's look at next. And you'll see that I now get the task information for task ID 46 Prepare for painting. So I can control how I move through using the next and previous buttons. Now as I mentioned just now you can actually choose what you want to show in the bottom for the selected task. And if you right click on the Task Form, it gives you options. So we have predecessors and successors, resources and predecessors, schedule, work cost, so on and so forth. And if we were to select something like Schedule, it will even show in there the amount of work required for that particular tasks. So in this case, 16 hours. And I can also see the scheduled start date and the scheduled finish date. And I can also see the leveling delay that's currently applied.

So there's really a good selection of things that you can show in Task Form view. And we can add more to this, which we're going to go into later on. So if I go back into the split view group, and the drop down next to details, you can even choose what is shown in the lower part of the split view. So currently, we have Task Form there. I could show Resource Form. Now you might think that's a little bit strange, isn't it showing you the Resource Form when you've got a task shown in the top? But in fact, what it means is that if I'm looking at prepare for painting task, the

person who's working on that is a contractor. And what I'm seeing at the bottom here is the work that the contractor is currently scheduled to do. So I can actually look at what one of the resources working on that selected task is doing. If I choose as my selected task, second fix electrics, I'd see that an electrician is currently assigned to these two tasks.

Now when you finished using a split view, there is a couple of ways of switching it off. One of them is to simply uncheck the details box up here. So the other way is just to hover over the split bar there to get the double arrow for the cursor, and then just drag it off the bottom of the screen. So let's do the horizontal one, like so. So there are a couple of other things I'd like to show you about views. You've already seen how to use the zoom to entire project. But sometimes when you're working on just part of a particular project, you may want to get some kind of automatic zoom so that you can see the most detail of that part of the project.

So let's suppose I was interested in the preparation phase of the bathroom refit. If I just select those tasks in the preparation phase, go to the Zoom Group, the Zoom button. And in the zoom dialog, if I select selected tasks, what Project 2019 will do is it just Zooms to those tasks. And in that way, I can get the maximum amount of detail in a View. And finally, one other very useful view, I'd like to show you. Let me go back to the top of this project and just make sure I haven't got a particular task selected. And let's look at the Calendar View.

Now Calendar View is a very interesting one where you can see the tasks of the project set out in a Calendar. And note how the milestones are colored differently. So they're showing here on mine in a gray color, whereas everything else is in blue. And you've got selected tabs at the top there for month, week, and custom view. And you could use that for showing a custom number of weeks in a date range that you specify. So that's Calendar View, which can be very useful when looking at what's coming up on a project.

That's basically all I've got for you on Views in this section. In the next section, we're going to take a look at Timelines. So please join me for that.

## Video: Timelines

**Deborah:** Hello there and welcome back to our course on Project 2019. In this section we're going to take a look at Timelines and primarily, Timelines are used as a communication and presentation tool.

A Timeline can be a pretty good way of getting a summary of aspects, possibly even all aspects of a Project and presenting them to an audience. Perhaps you aren't as interested in the detail of your projects as you are, or certainly an audience where the people don't have or use Microsoft Project. So you want to show them just the right amount of detail of a project, maybe highlight certain points, without going into the sort of complex diagram that we have here for the wedding.

So first of all, let's switch on the Timeline for the wedding and see what it looks like at the moment. So I'm going to go up to View, and in the Split View group, I'm going to select Timeline. Now along the top of the Timeline, you have Dates. And the left hand end by default is the Start Date. And the right hand end by default is the Finish Date of the project. Now at the moment, there are no TAs shown on the Timeline. And the only other thing shown is a marker, indicating today. If I wanted to show some tasks on the Timeline, and let's suppose I wanted to show the Selecting and ordering of the bridesmaids dresses, I can right click and select Add to Timeline. And it now appears in the Timeline. And you can see its duration in particular, relative in duration to the overall project as well. So let's add another one, I'm going to go to Make guest list, right click and select Add to Timeline. And there you can see that one pop up on the Timeline as well.

So it's a really nice way of getting an idea of where tasks are in the Timeline in relation to each other, and in relation to the overall project. Having added a couple of tasks to the Timeline, it's very easy to take them off again. So if I right click on Make guest list, whilst I don't have a remove from Timeline option, you will see that the Add to Timeline little icon is highlighted. So it's essentially a toggle. So if I want to remove that from the Timeline, I just click Add to Timeline again, and that will be removed. It's important to recognize that you don't use the Timeline in some automated way. You select what to add and you're usually selected on the basis of the purpose of the Timeline, which as I mentioned earlier, will quite often be some kind of presentation or summary of progress on all or parts of a project.

Now one of the very important aspects of a Timeline is that you might want to format it. And if I go and select my Timeline, if you look up, we have a Timeline Tools Contextual ribbon with a Format sub ribbon. And that contains lots of facilities, for instance, to change the color of the bars, or to change the Text Styles and so on. So I could jump in here and change the color very easily, I could increase the font size if I wanted to. And that's a bit too large. So I'm going to take that one back, but I'm going to leave it on orange. So I'll pretty much leave you to experiment with those and get that set up however you would like. And there's nothing to stop you working on the Timeline. And, the way I have it set up here, it's a very convenient way for adding and removing tasks. But you can actually work on the Timeline on its own. And sometimes the rest

of the display can be quite distracting. So let's adopt Timeline View. And you can do this in a couple of ways.

If you right click on the gray bar to the left there on Gantt Chart, one of the optional views that comes up is Timeline. But what you could also do if I just undo that is you could do the same thing by simply just dragging that divider all the way down to the bottom. And you'll see now that Timeline View occupies the whole of the view. And one of the advantages of this is that you can build up a quite complex content for the Timeline without the distraction of as we had just now, a Gantt Chart. And you may think to yourself, yeah, but that's not really very helpful is it because I can't see the task to add anymore. But there are a couple of ways of doing that. With the Timeline selected on the Timeline Tools Format tab in the Insert group, there is an existing tasks button. If you click on that, it brings up a hierarchical list of existing tasks. And if you want to put two or three more tasks onto the Timeline, you can select them and then click on OK. So for example, if we scroll down to let's go to details, and we'll add these three. And there we go.

So not only are they added to the Timeline, but if necessary, the height of the Timeline is adjusted to accommodate tasks that are actually happening at the same time. You could also add completely new tasks, you could add a task, which isn't even in the schedule yet. So again, up to that Format ribbon, and from the Insert group, select Task. So I can now go through and fill in the task information dialog as normal. And when I click on OK, it would appear on the Timeline and in my project schedule as well. Now, of course, for it to appear in the right place in the project, I may have to select Dependencies, I may have to set a start date and so on. But I can certainly enter the details of the task and have it added to both the Schedule and the Timeline in this way. I can also add a Milestone in that way. And I can also add something called a Call Out Task.

Now this is basically going to do the same as adding the task. But the task will in this case appear on the Timeline as a call out. Now what happens with a call out is it appears outside the Timeline as almost sort of note. So let's just cancel that. And let's take this task here, Register wedding and get license. If I right click, I can display as call out. And there you go, it's sort of appears as a call out outside of the Timeline as an additional note. Now, earlier on, I mentioned that one of the main reasons that people use Timelines is for communication and presentation purposes. And if you have a Timeline like this, then in order to present it or included in say, a PowerPoint presentation or send it to somebody in an email, you have a number of options. So again, up to that Format tab. In the copy group, there's one option, and that is Copy Timeline. And that button has three options, copy for email, for presentation, and copy full size. Copy will basically copy it to the clipboard, and then you can paste it in the appropriate format. And the final thing I want to show you here is the main new feature in Project 2019, in relation to Timelines. And that's the ability to have more than one Timeline.

So let's suppose we want to just highlight a particular perhaps shorter period in the project and add some tasks to that particular period. So let's just say I want to see what's going on between June and July only. If I go back up to the Format ribbon, in the Insert group, I have Timeline bar. And when I click that, you'll see that it adds a secondary Timeline. And what I'm going to do is go in and just change the dates to June and July. So right click on the Timeline, and select date

range. I'm going to set custom dates. And I'm going to select the beginning of June. And my finish date will be the end of July. And now then, of course I could add some tasks to that Timeline. I could even take tasks that I already have on a Timeline and drag them down to this one.

So if I say select and book and you can see how that displays in relation to the Timeline. Let's do the other ones Select and order bridesmaid dresses. And there we go. And you can see again, the Timeline adjusts vertically as I add more tasks. So that gives you the ability to use multiple Timelines. Now if I revert back to Gantt Chart View, and I'll switch Timeline on again, I'll see both of those Timelines. And I can add tasks to either, remove tasks from either, drag them between Timelines and so on. So that's it on Timelines. I will see you in the next section.

## Section 9 – Costs

### Video: Setting Costs for Task

**Deborah:** Hello again and welcome back to our course on Project 2019. In this section, we're going to start to look at Costs. And I'm going to begin by looking at the Bathroom Refit project.

We're going to look at some basic aspects of costs in this project. And then I'm going to set you exercise five to do to put in a little bit more detail about Cost in relation to the bathroom refit. And then in the section after that, we're going to look at a couple of other more general aspects of Costs. And we're also going to look at the cost for the wedding. So first of all, let's look at the cost for the bathroom refit. And what I'm preparing here is version 05.A of the Bathroom Refit project. And I'm going to straightaway jump over to the Resources sheets. And we're basically going to look at all of the costs related to the electrician who's the first one in the list here.

Now for Work Resources, generally, we would need at least a standard rates for a cost. And by default cost rate is entered in currency units per hour. You can express it, for instance, in cost per day, but at the moment we'll stick with per hour. And I'm going to put a standard rating here for the electrician as \$25 an hour. And I'm going to put into the overtime rates \$40 an hour. Now there's not really any noticeable difference on that at all. But if I go to the Project Information option on the Project tab, and click on Statistics, I'll now see that for the first time I have a cost for the bathroom refit. And currently it comes out to \$800. Now the reason it's \$800 is of course, because the electrician is scheduled to do 32 hours of work on the project. So the first fix electrician is two days' work. That's 16 hours at \$25, which is \$400. And then the second fix electrician is the same amount. So that's another \$400. So let's close that and let me return to the Resource Sheet.

Now let's take a look at a couple of other aspects of the cost of a Work Resource. Now for our electrician, we also specified an overtime rate of \$40 an hour. And for example, if I needed to get the electrician to work overtime, so to work outside of the electrician's normal hours of work, then it's this rate, I would need to pay the electrician. The difference between Standard Rate and Overtime Rate can of course be very significant because it may increase the cost of, for example, keeping a project on time that is starting to slip. And sometimes you have to balance the cost of a delay against the additional cost of keeping it all on schedule.

Now cost per use relates to an additional cost for each time that you might need to use a resource. This may apply to a Work Resource. So you may for instance, have an agency hiring fee to pay or something like that. But it could also relate to a piece of equipment, the delivery cost of a pump, or maybe a special piece of machinery. The next column is the Accrue column. And this basically relates to how you accrue a particular cost. Now this will often relate to when you pay for it. Do you pay for it upfront? Do you pay for it as the work is in progress? Or do you pay for it at the end. And if I click on Accrue and click the drop down here, I've basically got those three options; Accrue at the starts, Accrue prorated throughout the duration of the task, or



Accrue at the end. Now when it comes to company finance, of course the accrual be handled probably by an accountant or a team of accountants. But in the smaller project, it can be as simple as saying when do I have to pay for this.

Now very often on a small job like a bathroom refit, you may have already agreed with the contractor that you're going to pay at the start or perhaps by installments as you go or pay at the end. So on this occasion, I've agreed to pay the electrician at the end. So I'm going to put the Accrue column and set it to end. The next column determines which Calendar is in use by the particular resource. And we haven't looked at Calendars at all yet. We're going to be looking at them in a few sections from now. But basically by default, we have a five day a week, eight hour day working calendar. But a particular resource may use a different calendar. So for instance, this electrician may only be available Monday, Tuesdays and Wednesdays. Or he may have different hours of work perhaps starting earlier or finishing later than the rest of the people working on the project.

If the resource in this case, the electrician does have a different calendar, this is where I can specify it. And when Project is doing its scheduling, it will use the resources calendar rather than the default one for project. But as I said, we'll talk about this more later on. So having put in the cost of the electrician, and bearing in mind that I'm going to get you to set up the cost for the plumber, and the contractor as part of exercise five. Let's look now at some of the materials on the bathroom refit. And we're going to start with the flooring. Now I'm going to fit floor tiles. So let's add those in as a resource. The type of resource is material, and the material column specifies the unit that the material is measured in.

Now it's going to be measured in square meters, we're going to add the initial of floor tiles. And the standard rate will be the cost of one of the material units. So this is the cost of one square meter of floor tiles, which we're going to set at \$36. Now in the case of the floor tiles, we're going to have to pay for those up front. So we're going to put in here our Accrual of start. And it's worth noting that the cost per use in this case might, for example, be some kind of delivery cost. But we're gonna leave that as it is for now, and jump back to the Gantt Chart View. So let's scroll down and find that task Select and order flooring, which is just there. And let's assign the floor tiles to that task.

So let's right click and select Assign Resources. And I can see my floor tiles just here. And the number of units well we're going to order 12 square meters. And you can see there it's automatically brought up the cost of \$432 based on the cost per square meter, and close. And now you can see on the Gantt Chart we have floor tiles 12 square meters. And notice that we're going to have similar costs for the wall tiles here, the paint, and also the equipment. So we've entered some of the costs associated with this project. Exercise five is going to involve you entering some more. And, it's exercise five that I'm going to cover in the next section. So please join me for that.

## Video: Exercise 05

**Deborah:** Hello again and welcome back to our course on Project 2019. In this section, I'm going to set you exercise five. And in exercise five, you're going to add some costs to the Bathroom Refit project. We've already put in a couple of costs related to floor tiles and to the electrician's time. And what I want you to do in exercise five is first of all to put in an hourly rate and an hourly overtime rate for contractors and the plumber.

For the contractors, the hourly rate is \$22 and an overtime rate of \$33. And for the plumber, the hourly rate is \$25 with an overtime rate of \$35. Now in addition to that, I'd also like you to put in the cost of the tiles, so that's the wall tiles and not the floor tiles. They cost \$34 per square meter, and we need 18 square meters. So when we select and order the tiles, we need to pay for 18 square meters. And for the tiles there is a delivery charge of \$12. And that's a one off delivery charge.

For the paint, we need eight liters of paint, and it costs \$7 per liter and there's no delivery charge on that. And for both of those material costs, the costs accrue at the start of their respective tasks. So starting from 05 A, I'd like you to add those costs. And my answer to that is in exercise 05 B. That's it for this section. I will see you in the next one.

## Video: Adding Costs and Setting a Budget

**Deborah:** Hello again and welcome back to our course on Project 2019. I want to start this section by taking a look at the cost so far on the Bathroom Refit project. Because in this section, we're going to look at some of the other costs that can be incurred in a project of this type. But also some of the other ways that you can deal with cost in Project 2019.

The first thing I want to do is take a look at Task Usage View again. So I'm going to jump across to the View tab, and click Task Usage. And you may recall when we looked at this before that we can see the work for each of the tasks. And where resources are assigned to a particular task, we can see the amount of work that each resource is scheduled to do. So if I right click anywhere on the Details column here. So if I hover over where it says Work, and right click my mouse, it brings up a contextual menu. And this is a list of the items that I can show in the right hand half of the time phased half of this display. And not only can I show Work, but I can show Actual Work, Cumulative Work, Baseline. And I can also show amongst other things Cost. So let's click on that. Now, if I show cost with the current timescale enabled, I can show the cost of each of the tasks and where relevant each of the resources.

So for example, if I look at task 24 here, Select and order tiles. Although I'm not charging my time to the project for this, this is something I'm going to do myself. So the work I'm going to do as a resource is not chargeable. Now the cost of the tiles is chargeable. And because the accrual is specified as at the start, Select and order tiles, which starts on a Friday, the cost of the tiles \$18 per square meter \$624 is chargeable to my project on that Friday. And in fact, that's the same day that the floor tiles are chargeable as well, which you can see down here. And that's a charge of \$432 for the project.

And one other point to notice here, which can be quite confusing, but it's important to understand. Because we've assigned this resource to a task, so the floor tiles resource is allocated to the Select and order flooring task, Project assumes that we're actually going to consume this resource on this task, even though what we're actually doing is paying for it on this task.

Now there are a couple of other ways that you can deal with that. And we're going to be looking at those a little bit later on in this section. But it's important to realize that some of the assumptions that Project 2019 makes when you assign a resource to a task are not necessarily how things are in reality. But if as in this case, the cost works fine doing it that way, showing the cost when you buy the tiles even though you're not using them. But if as in this case, the cost works out fine as in showing the cost when you buy the tiles even though you're not using them in that buying task.

Now, don't forget that as before, we can actually change the Outline level. So if I wanted to look at these costs at level one, I can jump back up to the View ribbon, Click on Outline and select Level one. Now you can see the cost profile of the whole project starting to develop. Now what I want to do is to go back to the Gantt Chart and do something else which we haven't done so far. Now we've looked at our project with a number of different views. Apart from changing the view, you can change the specific table that is shown on the left hand half. So for example, the

Gantt Chart View. And what I want to do here is choose a different table. So on the View tab in the Tables drop down, instead of selecting the Entry Table, I'm going to show the Cost Table. Now what the Cost Table shows me is a breakdown of the cost for my project at the appropriate selected level.

Now you can see that for each of the phases here, I have a Total Cost, Baseline Cost, a Cost Variance, and an Actual Cost on the end here. Now let's go to level two. And you can see a very detailed tabular breakdown of Cost. And you can go right down to the level of checking the cost at any level of subtask. Now we still have the third type of resource to look at and that is a Cost Resource. And I want to refer you back now to what I said just a moment or two ago about how Project, when you assign a material to a task, by default, will assume that you're going to consume that material uniformly during the task. And that may or may not be important in a particular project.

Now, one of the major costs that we haven't so far set up on this project is the cost of the bathroom equipment. And of course, I could have a nice long shopping list of basins, taps, etc., and put all that into the project and show the individual costs. But supposing that all I want to do is to say that, well, I've already figured out the cost of the equipment, and it's not consumed in the way that say, painters, it's just a cost to the project. And what I'm going to do is to set up the bathroom equipment itself as a Cost Resource. So again, let's jump across to our favorite Resource Sheet, and I'm going to add a new resource. And it's called Bathroom equipment. And the type is Cost. And when I set the type as Cost, a number of things happen, one of them is that I can't pay anything in the standard rate or the overtime rate.

Now I can indicate how Cost is accrued. And I'm going to say it's accrued at the end of the task. But note, there is no Calendar, and there is no Cost, etc., I enter the cost when I actually assign this resource to the relevant task. So let me jump back across to the Gantt. And I'm going to identify the task that I want. So it's in the purchasing phase, expand equipment, and it's this one here Select and order equipment. So we should be used to this by now, right click and Assign Resources. So we've got bathroom equipment selected, I'm going to click Assign. And it's only when I click Assign that I add in the cost, and the cost is going to be 3000. And you can see that that cost is now assigned to that particular task. Now the difference here is the project does not assume that there is a material being consumed. And if I went back to Task Usage, and we look at that particular task, which is here, task 36, you'll notice that the cost of 3000 is accrued at the end of the task. So if you look at the dates up here, and refer to the finish date, which is March the 26, you can see that Cost doesn't come into effect until that date.

Now, I hope that you're starting to get a reasonable idea of how the different types of resource work and the situations in which each of them is most suitable. So where you have an amount of work or perhaps a duration of a task, often it's Work Resources that are best for that. Where you have a task where it's an amount of a resource that's used, very often Material is good for that. Whereas where the cost is some kind of fixed figure, then often a Cost Resource is a good approach for that. Now, there are a couple of other examples of costs that I want to show you here. And the first of them is a Fixed Cost that may be specifically associated with a task.

Now in this case, you might think of this as sort of the equivalent of the delivery cost of the tiles. But this is not a fixed cost associated with one of the resources used on a task. This is a fixed cost associated with the task itself. So let's jump back to the Gantt Chart and let's look at an example. So I'm going to scroll down to the electrical costs area. And you'll see one of the items there is Certification, so task ID 50. We need to get certification from the local authority on electricity. And there is a standard charge for getting that certification of \$75. And you can see that the first column that we have here is a Fixed Cost column. So for certification, I'm going to type straight into this column \$75. And that needs to be paid up front. So that's the cost that's accrued at the start of this particular task.

Now note, it's not to do with the resource, it's not to do with the amount of material, it's not actually associated with a resource at all. So it makes sense to put this in as just a standard fixed cost. The last example of a cost that I want to tell you about is a Budget Cost. Setting a Budget Cost is not very intuitive, and you really need to know a little bit about how they work in order to remember and understand how to set them up. So let's suppose that on this project, I expect that I'm going to have some incidental expenses. So I'm going to need to pay maybe some glaze or maybe a bit of beading or some plastic strips or something around here, that's really incidental to the overall project. So I'm going to have to allow for the fact that I might need those expenses, I've probably got some idea of what they're going to be. So I need to allow myself \$300 over the whole of this project to pay for those little incidental expenses.

So what I can do is set up a Budget Cost. But a Budget Cost applies to the whole project. And in order to set that Budget Cost, you create a Budget Resource, and then assign it to the Project Summary Task. So once again, let's jump across to the Resource Sheet. And set up our Budget Resource. I'm going to call this Resource incidental expenses, it's a Cost, and we'll give it the initials of incidental. And I'm going to leave the accrual as prorated. And then what I do is to open up the resource information dialog. And you can do that in a number of ways. I'm just going to double click, it's the quickest and the easiest way. And I'm going to check the box that says, Budget.

Note the other checkbox here Generic, that's used for Generic Resources, which we're not going to look at the moment, but it is something that you'll come across later in your use of Project 2019. And click OK. So there's my Budget Resource. Let's jump back to the Gantt Chart, and let me select the Project Summary Tasks. So that's the one right at the top to Summary Task Information, which is this big button here in the Properties group on the Task tab. And notice that this dialog box is called Summary Task Information. Go to the Resources tab, and from the drop down, select my resource which is Incidental Expenses. And it's worth noting that you can only assign Budget Resources to the Project Summary Task, you can't assign them to any other task within the project. You also cannot enter a cost at this stage, I'll show you how to do that in just a moment. So we're just going to leave it with the resource name and click on OK.

Now we go back to Task Usage View. And what you see at the right at the top there is our Project Summary Task. And then underneath we have our single resource; Incidental Expenses, which is of course, a Budget Resource. Now what I'm going to do is change tables so that we can see the cost. So up to the tables drop down and select Cost. I'm just going to make a little bit

more room. So I'm also going to include this add New Column item just here. Now what I'm going to do is add a new column. So I'm going to just select the Baseline column, and I'm going to right click and select Insert column. And what I can do here is I can insert any type of column that I like. So I want a column that's going to show the Budget Cost and these are all in alphabetical order. So it shouldn't be too difficult to find because it is a B.

And if we go all the way down here, I'm going to select Budget Cost. And there we go, I have my new column. And I'm going to add into here for Incidental Expenses, \$300. So that makes it very easy to keep track of any Budget Costs that we have in the project. The ones you'll see later on when we start tracking costs, and also need to manually track this cost. So if at the end of the first month I've spent \$127, I'm going to need to show that I've spent \$127 of those \$300. But that's how to set up a Budget Cost on a project. Now as far as cost goes, that's certainly enough to get us started. And it's certainly enough for us to start to build up a good cost profile and a reasonable project cost. But that's the end of this section. I will see you in the next one.

## Video: Setting up Budget Costs

**Deborah:** Hello again and welcome back to our course on Project 2019. In the previous section, we looked at Costs, and I showed you quite a few different ways of handling Cost but with specific references to the Bathroom Refit project. I'm returning now to the wedding. And we're going to look at costs in the wedding. Because largely speaking, the issues of cost in the wedding are completely different to those in the bathroom refit. And it's important to use the appropriate resources and the appropriate approach to cost depending on the type of the project. So let's take a look now at the cost for the wedding.

Now earlier on if you recall, we added a small number of resources to this plan, and we assigned them to various tasks. What I've done now is to add quite a few more resources primarily as Cost Resources. So again, if we jump across to the Resource Sheet, you can see all of these new resources that I've added. So things like Wedding Venue, Reception Venue, Catering, Flowers, so on and so forth. And I set up the accrual of those as end. And you might think, well, surely you're not going to pay for those venues at the end of using them. Well, no, but the important point here is that those resources are not assigned to the use of the venue, they're assigned to the booking. And the cost is incurred in the case of the wedding venue, when we booked the venue

If I go back to the Gantt Chart, the task where we're actually assigning that resource is Book Wedding Venue, which is all the way down here. And the cost we've entered there for that is \$3,500. And that's going to be at the end of the task, so May the 17th in this case. So we're not talking about consuming it through the life of the task, we're talking about accruing a cost at that particular point. Now, let's suppose that in fact, with this cost of the wedding venue, we have to pay for it in two parts. Maybe we had to pay a deposit, and then we had to pay a balance, perhaps on the day of the wedding. In that case, what you would normally do is to create two costs, a Deposit Cost and the Balance Cost. And, assign the deposit cost to the booking task, and the balance cost to the wedding day itself.

Now, I haven't done that here but it is a pretty straightforward thing to do. And with all of these costs associated with the wedding, you may well pay for them in two or more installments. It's certainly the case that with most of these resources that you wouldn't set them up as materials that are used during the life of the project. So if I go back to the Resource Sheet, and in the case of the photographer, I set it up as a cost. And I set it up for accrual at the end. That's the task where we booked the photographer. And if we're going to pay for the photographer fully in advance, we would accrue this at the end of the task where we're booking the photographer.

Now let's return briefly to the wedding rings. I set them up initially as materials, we were talking about materials at the time, but they're not really material resources. And you could say well, the material is the wedding ring, the unit is the ring and we're buying two of them. But in reality, the wedding rings will probably be more appropriately set up as a cost as well. And indeed, I'm going to change this to a Cost Resource. So as you can see, virtually all of the resources here are set up as Cost Resources. We have Work Resources just to make sure that the work is spread out for the bride and groom and the bridesmaids. But of course that time is not chargeable. So we



have pretty much a completely different arrangement here to the arrangement we have in the Bathroom Refit project.

Now again, referring back to the proceeding section, many of the costs for the wedding could have been set up as fixed costs for tasks. And I've set one of them up here just to show you so if we scroll down to task ID 42; Register wedding and get license. I've put in there a local state license fee of \$60 for a marriage license. Clearly many of the other costs could be handled in just the same way. One of the key differences there is as you can see by comparing say, task 42 with task 46 Book wedding venue is that whereas the wedding venue cost shows up as a resource on the Gantt Chart of 3500 the marriage license is a fixed cost and so it doesn't show. You will develop over time as you use Project 2019 more and more of your own way of getting about dealing with cost. And very often, the reasons for doing them in certain ways are very specific to the project you're working on.

Having set up those costs, let's go up to the Project tab and Project Information. And we're going to click Statistics. And we have a cost at the moment for our wedding of \$29,750. It might also be the case with a project like this that you may want to set up a budget for incidental expenses, as we did with the bathroom refit. Now apart from assigning those costs to the project, I've also done a little bit more work on the resourcing from the point of view of removing any over allocations. So currently, we have no over allocated resources on my schedule. And then what I did was to take task seven or the preparation phase summary task and set up a dependency. So if I scroll down all the way down to wedding day, you can see here in the Predecessor's column, the dependency is shown there, so seven Fs plus 21 days. So that's a Predecessor of the wedding day.

Now you should be getting used to reading those. So this particular task wedding day has seven as a Predecessor. That is a finish to start link and a 21 day lag. So what I've said here is that I've worked out how long it's going to take to do the preparation. I've then added 21 days and said, that's my wedding date. So that's given me in effect 21 days, that's working days of contingency from the end of task seven, which is the preparation through to the wedding day. Now at some point, I may want to decide to fix that wedding date, I may choose the next Saturday, for example. But by adding that little bit of contingency there, I'm going to allow for some of the little bumps and mishaps that are going to happen along the way.

So currently, I have a wedding day, that's due to take place on November the 21st 2019. I'm now ready to get the project started and start tracking progress. That is where we're going to start in the next section. So I'll see you then.

## Section 10 - Baselines

### Video: Setting a Baseline

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to take a look at Baselines. And put simply, the Baseline for a project is basically what we anticipated or what we planned to happen. And hopefully, when the project starts and we start measuring our progress on the project, the Baseline is what we keep close to. Ideally, we're going to deliver the project according to the use of resources, the timescales and the cost in our Baseline.

So the Baseline is in fact, a snapshot of a project at a specific point in time. So in the case of the wedding, if I decide that I'm now happy with my resource allocation, I'm happy with the cost, I'm happy with the date and with the sequence in which all of these things are happening, then I can say that that is what I intend to happen. That is going to be my Baseline. And from this point onwards, I'm going to measure progress against that Baseline. And in many cases, and particularly when it comes to budget, it's really important to know if you're working to schedule or not. So the measuring of progress is really very important, but we measure it against a Baseline.

Now I should point out a couple of project management related things about Baselines just before we start. One of them is that the use of a Baseline is a very good tool for measuring progress, for measuring progress against cost timescales, etc. But it's really important when looking at progress against the Baseline, that you understand exactly what you're looking at. And let me just give you a quick example of that. So imagine that you've gone to a meeting, and somebody there is explaining how the costs on a project are way below budget, and they were actually spending a lot less than anticipated, which sounds great, right? Everybody's very impressed.

But the reason they were spending less than anticipated was because they were so far behind schedule that they hadn't bought half of the materials required for the project yet. So what they've done is they've taken the bad news and turned it into good news. So you need to be careful to make sure that when you're comparing against a Baseline or given a report on how well the project is progressing, that you're giving a true picture of how well the project is doing. Another thing to point out is that once you've saved your Baseline, under normal circumstances, you wouldn't change it. You wouldn't, if you like, move the goalposts for your project. But there can be situations when you will legitimately change your Baseline.

So for example, you may be working on a project, say this wedding project. And shortly after you've started, the bride and groom decide to make it a completely different sort of wedding. So maybe they decide to hold the wedding overseas or perhaps make it a much larger wedding. And it would be kind of silly to try and measure progress on something completely different against the Baseline for the original wedding plan. So in that case, you may need to change the Baseline,

I'm going to assume for these purposes, generally speaking, but once we've got a Baseline, that's it. So let's take this project as it is and save it as a Baseline. And what I'd like to do as we're doing this is just to demonstrate what saving or setting a Baseline actually does.

So I'm going to change the table shown in the Gantt Chart here again. And it's worth noting that you don't need to do this to set a Baseline, but I'm going to do it on this occasion. So I'm going to go up to View, I'm going to click on the Tables drop down, which we've done before. And I'm going to go to More Tables. And I'm actually going to choose the Baseline table and apply. And what you can see here in the Baseline table are the Baseline durations of each task and note that everything is currently zero. And the reason is, because this Baseline information hasn't been set yet. Until we save a Baseline all of these fields are empty.

We have a Baseline start date, a Baseline finish date, a Baseline amount of work, if I just drag that across, we have a Baseline cost, predecessors so on and so forth. So when we set the Baseline all of these fields get filled in, of course, some of them may still say zero, but things like Baseline start and Baseline finish, or record the start and finish date as they are in this version of the plan. So what I do now is go up to the Project tab, and you'll see that there is a Set Baseline option there. So click on Set Baseline and it brings up the set Baseline dialog box. Now the first thing to point out here is that when you set a Baseline, you choose which Baseline to set. By default, it's Baseline. But in fact, in project you can have up to 11 Baselines. That's Baseline, and then the 10 alternatives that you can see in the drop down list.

What can happen during the life of a project is that after you've been working on the project for some length of time, there are so many things to change, and you get to the point where you need to save a new Baseline. But you may want to save the original version of a Baseline first, so we're going to stick with Baseline. The second option on this dialog is set Interim Plan. I'm going to tell you more about Interim Plans in two or three sections from now. So I want you to just to ignore this at the moment. And then you can either set a Baseline for the entire project, or for selected tasks within the project. Now I'm going to set it for the entire project, and I'm going to click on OK. And just take note of what's happened there. Hopefully, you weren't too surprised by the fact that very many of the fields in the Baseline table were filled in when I set the Baseline.

Now one very other important thing to remember about Baselines, although setting a Baseline involves Project setting up a lot of information. It's also very straightforward to clear a Baseline. If you go back to that set Baseline button and click on the lower half, you'll see you have a Clear Baseline option. And when you click it, it says basically what Baseline do you want to clear? And you can click the drop down and you can clear whichever Baseline you want. So it's saying or it's telling me here that I last saved this Baseline essentially, a few minutes ago as I did. So you can select which Baseline you want to clear.

Now that's a really useful function if you have multiple different Baselines, or you're saving different Baselines as you go along. I also get the option to Clear Interim Plan as well. And as I said, we're going to talk about that in a few sections time, so I'm not going to do that currently. But what I am going to do is I am going to clear this Baseline just by selecting it, selecting entire

project and clicking OK. And everything goes back to the way it was. Let me just set it again. So we click Set Baseline and Set Baseline again, I'm happy to use the default, which is Baseline and I want it for the Entire Project, and Ok. And now again, I have a Baseline.

Once the Baseline has been set, you have the basis to measure progress on a project. And we're going to be looking at tracking progress a little bit later on in the course. I also need to tell you one or two other useful things about Baselines. But before we do that, I've got a couple of other things to do. First of all, in the next section, I'm going to tell you about the Critical Path. And then following that you're going to set the Baseline for the Bathroom Refit project. But at the moment that's it for this section. Please join me in the next

## Video: Working with Critical Path and Slack

**Deborah:** Hello again and welcome back to our course on Project 2019. In this section, we're going to look at the Critical Path. In the preceding section, we saved the Baseline for our wedding project. And now we're going to look at the Critical Path and what that is.

The reason that I want to look at the Critical Path now is because as we start to track progress on a project, it's very often the case that things start to go a little bit wrong. For example, things get delayed, they take longer than expected, perhaps the costs increase or decrease. And at any point in time, you may need to get back to a situation where you're saving time, you're making up for slippage on a project. And when you need to make up for slippage, what you really need to know is which tasks are really driving, when this project is going to finish. The set of tasks that determine when a project is going to finish is called the Critical Path. It's the route you take to the end. And the tasks within the Critical Path are usually referred to as the Critical Tasks.

So the first thing I'm going to do with the wedding project is to find out what our Critical Tasks are. Now in order to do that in Gantt Chart View, if I go up to the Format ribbon, and in the Bar Styles group, you'll see one of the options there is a small checkbox called Critical Tasks. So I'm going to check that. And it will show on my charts all of the Critical Tasks in red. And note that also in the ScreenTip description as I hover over that Critical Tasks checkbox. So essentially, the tasks highlighted in red on my Gantt Chart here are the ones that actually determine when this project is going to be completed.

Now sometimes, and particularly with a project with lots and lots of tasks in it, it's difficult to see the Critical Tasks. They might be spread out quite a bit as are these. And there is a way of only showing the Critical Tasks. And in order to do that, we're going to look at another important aspect of Views. So I'm going to jump back up to the View tab. And I'm going to apply a filter. And we did look at filters a little bit earlier on in the course, you'll find them in the Data group. In the middle, there we have filter. Now in this case, the filter I'm going to apply is called Critical. And you'll see it it's the fourth one down there in the list. And what that immediately does is it filters in only those Critical Tasks. So it makes them a lot easier for me to see in context of my project.

Now, it's quite often the case when you look at the Critical Path on a project, that it is a continuous Critical Path. And what I mean by that is that for every day of the project, from the very beginning to the very end, there is at least one Critical Task happening. In this particular project. That's not actually the case, there are I think, three significant gaps. And sometimes gaps are completely explicable. They're there for a good reason, no problem with them at all. Sometimes they can indicate that maybe there's a problem with the way that you have your Project setup. So let's just take a quick look at a couple of the gaps here just to give you an idea of how these things can occur. So I'm going to just zoom out ever so slightly, so we get more of an idea of what's going on. And I'm going to look first at one towards the end. So this is the one that occupies quite a bit of October. And it's the gap after Select honeymoon destination and

Book honeymoon, which is a Critical Task. And the wedding day, which itself is of course critical because it's the end, it's the last day of the project.

Now the reason there's a gap there is because I set up the 21 day contingency. So that wedding day is going to be 21 days after the end of the preparation phase. And if you remember if I drag this out very slightly, you can see here at the bottom Wedding day, 21 days after task seven, which is the preparation phase up here. Now given the definition of what a Critical Task is, it's one that's happening that can't slip. There are no tasks occurring in that period, so none of them can be critical. So that's a perfectly legitimate gap in a Critical Path. The gap in the middle is largely down to the effects of Resource Leveling. And what can happen sometimes is that although we'll know one particular task has to be completed by a particular day, you can probably be reasonably flexible in the order in which you complete the tasks, subject to Dependencies, Constraints, etc. But basically, you just have a lot of work to do in the time and resource leveling will sometimes cause gaps.

Now the first gap, the one that you see after Agree budget and approach, and the one before Make reception venue shortlist, there is actually a task active there, which is making of the guests list. And there are dependencies on that. Although the dependencies on making the guests list are based on its start date, not its end dates, which will sometimes stop a task from being critical anyway. But the gap here is largely down to a combination of leveling, and task prioritization as well. So in many ways, this particular project schedule is quite unusual. The Critical Path is quite unusual because of the number of gaps. But there are reasons for those gaps. And you'll tend to get gaps for example, in projects where you have a lot of resource issues, and also where there isn't a very definite sequence through the project. So what I'd like to do now is show you another way of looking at criticality of tasks.

And first of all, I'm going to change the table that's in use here. So I'm going to change it back to an entry table. And I'm going to insert a column and we've done this before, right click Insert column. And the column I'm going to add is called Finish Slack. So again, these are in alphabetical order. So let's scroll down to finish, and there is Finish Slack. And what Finish Slack shows me is the Slack. The amount by which any task can be delayed, it's finished can be delayed without affecting the end of a project. Now it's interesting for Critical Tasks their Finish Slack is zero days. And as you can see, all of these red tasks have a Finished Slack of zero days. In fact, in Project 2019, you can change if you like this definition of critical, and say, for example, that any task with two days or less Finish Slack is regarded as critical. We're not going to do that on this course.

For the moment, we're going to stick with the standard definition that a task is critical if it's Finish Slack is zero days. That means that even if it was one day late, it would affect the end date of the project. Now let me remove that critical filter. And let's look at Finished Slack on all of the tasks. Now if you look at something like select wedding dress, that's got 48 days of Finished Slack. So that could be 48 days late. Bear in mind various other tasks follow on after that. But it could be 48 days late without affecting the finish date of the whole project. And if you scroll through and have a look down at other tasks in the schedule, you'll see that all of the non-Critical Tasks have in many cases, a significant amount of Finished Slack.

Something else you might find useful as well. Again, if I go to the Gantt Chart Tools, the Format tab underneath the Critical Tasks checkbox in the Bar Styles group, there is a Slack checkbox. And if you enable that, for each task, you will see a visual indicator of its Slack. So you'll see a line next to the non-Critical Tasks. And the Slack also shows on the Summary Tasks. So again, you can see the line at the end of this summary task just here. So it gives a really good visual indicator of how much Slack there is on individual tasks within your schedule. So in summation, in this section, we've looked at the Critical Path and Critical Tasks and at Slack. A couple of other things to mention. If I go back to the Resource Tab, and go into Leveling Options, again, I mentioned this earlier on, there's an option in here; Level only within available Slack.

If you click on level only within available Slack that does severely limit the amount of leveling the project is able to do. But it does also mean that you don't cause any delay. And secondly, if you need to shorten the project possibly to deal with a delay during the running of the project, the place to start is with the Critical Path. Because, it's the Critical Tasks on the Critical Path that basically determine when a project is going to finish. That's it for the end of this section. In the next section. I'm going to set you exercise six so please join me for that.



## Video: Exercise 06

**Deborah:** Hello again and welcome back to our course on Project 2019. In this section, I'm going to set you exercise six. Now this is a pretty straightforward exercise. You're looking here at an outline version of the Bathroom Refit project and all I want you to do is to save a Baseline for the project.

Now bear in mind, the dates you have will almost certainly not be the same as the dates that I have. So I can't tell you specifically for instance when your project starts and ends. But the shape of the project should be very similar to the shape that you see here. So I want you to save a Baseline and having saved it, what I would then like you to do is to highlight the Critical Path on the project.

Now my answer to that is in version 06 B of the Bathroom Refit project. And with the Critical Tasks filtered, you can see the Critical Path on the Bathroom Refit project. Obviously it's completely different proposition to the wedding because there really aren't any gaps and in many places, there are two or more Critical Tasks in progress. So there we are, that's what you're aiming for. That's my sample answer to exercise six. And that's the end of this section. I will see you in the next one.

## Video: Changing Baselines

**Deborah:** Hello again and welcome back to our course on Project 2019. In this section, I'm going to tell you a few more things about Baselines. Now, we've already set a Baseline for each of our two projects, the wedding and the bathroom refit. And I want to talk to you about what happens if you need to change your Baseline first of all.

Now, there are various situations in which a Baseline might need to be changed. In some cases, you may have a reason legitimately to change your Baseline. In other circumstances, it may mean that rather than changing the Baseline, you perhaps ought to be saving a new one. So let's start with what might be called a legitimate example of changing a Baseline. So I've done this plan for the wedding, I've set up the costs, I've sorted out my resource over allocations, etc. And as far as I'm concerned, everything is looking good. So I decided to save my Baseline. And just after I've saved the Baseline, I realized that I've left something out. And the thing I've left out is the best man or the groomsman's tuxedo, which I know is going to be a cost to the wedding.

And so really, this is not a case that the cost of the wedding has been exceeded because of something changing, it's just a straightforward mistake; we've left something out. It should have been in the Baseline in the first instance. Now essentially, I don't want to start all over again, I just want to add that one task to the Baseline. So let's see how we can change the Baseline. Now the way that I would normally do this is by making the changes that I need to make and then doing a set Baseline, but only for selected tasks. I don't know if you remember, when we went into set Baseline last time, there was that option there. So what I'm going to do first is I'm going to insert the task that's missing. And I'm going to put it after select and order groom tuxedo.

So I'm going to right click, Insert task, and I'm going to add the task that I've missed. So that task has been added. And I'm quickly going to switch this table back to Baseline View. So into Tables, More Tables, and Baseline. Now you might be tempted at this point to say okay, well, I can fill in the Baseline figures, just here. I can put in the Baseline start date, finish date, so on and so forth. That isn't really how Baselines work. When you want to add an item like this to the Baseline or you want to change an item, you need to do it by setting the normal fields up and then doing a set Baseline because Project 2019 does a certain amount of calculation. So there are a couple of things I could do here.

So for instance, I could bring up the task information box by double clicking. But instead of doing this, I'm just going to cancel out of there, I'm going to change back to Normal Entry View. And I'm going to change the settings for this task. So I'm going to say that it's a 20 day task. And what I'm also going to say is that it really needs two resources. So one resource is going to be a little bit of time by the groom to help the best man choose a tuxedo. But I'm also going to need the cost of the best man's tuxedo. So let's jump across to the resource sheet and insert a new cost resource and to keep things consistent, I'm going to put it underneath groom's attire.

I'm going to call this Best Man's Attire. It's going to be a Cost Resource. And the accrual is going to be end. And let's just add some initials in there as well. So there's my new resource. It's a Cost Resource, of course. And as I say, I'm just going to need 10% of the groom's time just to get

involved in the selection of the best man or groomsman's tuxedo. So what I'm going to do is going to jump back to the Gantt Chart, and we're going to assign that resource to this task. And again, we've done this a few times before, and we're going to say that we need 10% of the groom's time and there we are.

So now we have an over allocation on the groom's time. And we have one more thing to do before we look at that over allocation. And that is we don't want the best man's attire to be started until we've started on selecting and ordering the groom's attire. So what I'm going to do is I'm going to go and select tasks 14, and 15. And I'm going to establish a link between them. And in fact, with that process of linking those two tasks together, the resource over allocation is resolved anyway. So having done that, what I'm going to do is select that single new task there, task 15. And I'm going to go up to the Project Tab. And I'm going to go across to Set Baseline and click on Set Baseline.

Now make sure that you do have the correct Baseline selected, which is this one, the only one we have at the moment. And I'm going to say set the Baseline instead of entire project selected tasks. And in fact, in this case, only one new task has been inserted. Now there are a couple of important checkboxes here. And I'm going to briefly explain these to you. Now if you add a task like this, note that it isn't only individual tasks that we store Baseline information for. If we have a task within a Summary Task, so in this case, this task, task 15 that we're looking at is within the Attire Summary Task. And I'm sure you notice that we have Baseline information for the Summary Task. And in turn Baseline information for the phase that the Summary Task belongs to, in this case, the preparation phase. And in turn Baseline information for the whole project.

Now in the process of adding this task, we have to decide whether we want to change whether we want to update the Baseline figures for all Summary Tasks up the tree if you like. So essentially, do we want to roll up Baselines to all Summary Tasks? And you can see we have a checkbox just there, which would allow us to do that. We also have the option of selecting which Summary Tasks we want to update Baseline information for. This is called rolling up the information. So if we wanted, for example, to leave all of the original totals as they are, and just add the individual task, we wouldn't check either of those boxes. Now on this occasion, I'm going to say roll up Baselines to all Summary Tasks. And I'm going to click on OK.

Now I'll get this message that says Baseline has already been used and then the date Are you sure you want to override the data in this Baseline. So it just give me a warning that I've made a change. And if I select Yes, it's essentially going to overwrite those changes for that Baseline. Now I'm happy with that because I want to add this task into that Baseline. So I'm going to click Yes. And then I'm going to go back up, and I'm going to select Baseline Table. And now you can see that for our select and order best man tuxedo task, we have all of its Baseline information saved. Now at this stage, I have two other things to tell you about in relation to Baselines. And I'm going to, if you like join these two topics together. And one of them is Copying Baselines, and the other one is the use of Interim Plans.

Now it's very often the case that particularly in long projects, things do change. And after a time, it becomes inappropriate to measure progress against an original Baseline, because so many

things have changed. Now we're talking here about the scope of the project rather than just things going wrong. But there often comes a point when you size that what you really need is a new Baseline to measure the project against. Now best practice normally says that whatever happens, you're going to save the original Baseline. And the normal way to save a Baseline in Project 2019 is to copy it. I mentioned there are a total of 11 sets of Baseline fields. So many people copy the original Baseline to Baseline 10. And that's the convention that's used as a way of keeping the original Baseline.

Now that's just a convention you can actually copy any Baseline number to any Baseline number. But the reason for putting these two topics together, as I mentioned just now is that you do it as part of what appears to be setting an Interim Plan. An Interim Plan is in effect a sort of low fat Baseline and Interim Plan is if you like a Baseline with just the start and finish dates in it. Baselines in general store information about work and cost and durations. They're all in the columns that you can see in front of you in the Baseline table here. An Interim Plan only has start and finish dates in it. Now, if you want to set an Interim Plan, if you go to the Project Tab and go into Set Baseline again, the second option there set Interim Plan. And what you do when you set an Interim Plan is you copy something to something. So I could copy the currently scheduled start and finish dates to start and finish one.

Now that pair of start and finish dates constitutes an Interim Plan. But what we actually want to do here is we want to copy our Baseline. So from copy, I can select Baseline. And I'm going to say copy into, and I can select any one of these. And as I said good practice is to start at 10 and work backwards. So we're going to say copy Baseline into Baseline 10. And as you can see, by default, it's going to do the entire project. So if I was to click OK now, my entire Baseline is going to be copied into Baseline 10. So really, it kind of makes a backup copy. That's it for Baselines and this section in general, please join me in the next one.

## Section 11 – Tables

### Video: Modifying Tables

**Deborah:** Hello again and welcome back to our course on Project 2019. In this section, I'm going to look in a little bit more detail at Tables. Now we've used Tables before, I've switched between Tables a few times already in the course. And much of what you need to know you will have picked up from what we've done earlier on. But there are a few specific things I need to point out.

The first thing to point out is that a table is really just a collection of pieces of information about either a task or a resource. The Tables in Project 2019 are divided into Task Tables, and Resource Tables. Task Tables contain information about tasks, and I'm pretty sure you can guess what Resource Tables contain. Now there are several different Task Tables. And if we go back to the View tab, and click on the Tables drop down, the ones you can see in the list here are perceived as the most commonly used ones. So we have Cost, Table, Entry, Hyperlink, Schedule, so on and so forth. So there's about eight or nine of them in there. But there is a full list of Tables. And it's actually quite a long list. So let's go back to the Entry Table, and click on Apply.

Now in order to tell you a little bit more about Tables, what I'm going to do here is to drag the chart parts right off to the right. So I'm going to grab this middle bar, and drag it all the way across, which gives us a little bit more room, as we're going to talk about the columns in this table. Now the task entry table, and many of the Tables is just a combination of different columns. And of course, as you would expect, you can customize what columns you see in your View. So if I wanted to insert a column, say between the start and finish columns, if I just select Finish, right click and select Insert column, I then can see all the different field names that I could use for this column header. And there are lots and lots in there. As I've said before, they're all in alphabetical order. So that makes them a little bit easier to find. And you can see all of the baseline ones that we have in there.

Now I'm just going to hark back to something that we did earlier. And I'm going to go all the way down to the bottom, and I'm going to select Finish Slack. So that gives me a column with the Slack information in it. So nice and easy to insert a column. Now apart from inserting the column in the way that I just showed you between a couple of existing columns, or I should say more specifically to the left of an existing column, you also have this column at the end where it says Add New Column. So let's click the drop down. And we get that same long list of Fields. So let's choose on this occasion, I'm going to scroll down and select Critical. And that's now in the rightmost column. And you'll see that now I've done that what Project 2019 does is it gives me another Add New Column on the end.

Now one thing you may find very useful with Tables is to be able to format them a little bit more comprehensively. And this is particularly useful when you're doing presentations, possibly when you're printing out something like a Gantt Chart, and you want to make the information look

smart and informative. So if you right click on the head of one of the columns, you'll see an option there for Field Settings. And that brings up the Field Settings Dialog. Now in the Field Settings Dialog, you can set or change quite a few things. So the first drop down list here, Field Name, lets you choose the field name that's shown. And again, this is a very, very long list. So I'm going to stick with finish.

Now the Title area, I could choose to call this field something completely different. So if I wanted to call it Task Finished Date, I could do that by just typing it into the title box. So it doesn't essentially change the field name underneath, it just really changes that display name that you have. I'm not going to do that in this case, we're going to leave it as finish. I could also say how I'd like that title align, so Center, Left, or Right. And also how I would like the data aligned. So let's change the data alignment from Right to Center. And let's make the column a little bit wider. So currently, it's set to 16 units. So let's make that 20 and where the header text is too long to fit. If I have this box checked, that will then wrap the text. And let's click on OK.

So you can see now there's been a significant change to the formatting of that particular column, everything is aligned to the center, and our column is slightly wider than the ones next to it. If you look at Finished Slack starts and work, you can definitely see that finish is slightly wider because we set it to 20 units. So let me right click on it again. And we go back to Field Settings. So if I'd made it obviously too small, and I had Header Text Wrapping not set, then I would lose part of that header text. The other thing you can do in here is select Best Fit, and it will set the width to fit all the data that's currently in that column. And there we go.

Now there are various other ways that you can customize the appearance, you can format the columns. If you go up to the Gantt Chart Tools Format tab, there's a Columns Group. And apart from being able to do things like insert a column, if you also click on the Column Settings drop down, you get some of the field settings that you've just seen. And also a quick link to jump to that Field Settings. And you'll see if I hover over it, there is a shortcut, Alt plus F3. And going back to the right click menu again, you can for example, change the font. So you can do things like change the Text Style, change the Size, Underline, Strikethrough, and change the Color if you want to. So lots of different ways that you can change the look and feel of your display or your view that you're seeing.

One other thing that you need to be able to do is to Hide a Column, which is basically doing the opposite of inserting a column. Now when it says hide column, and again, you can access that from the right click menu, what it actually means is remove it from this table. It doesn't delete any data, it just means that that column of information is no longer shown. So if I was to hide this column, you'll see that I can no longer see it. And if I wanted to, I could insert that again. So we should be used to doing that. And I go back to my list. So if I was looking for finish, I could start to type finish. And it will bring up just the items that match what I've typed. So it's like a little filter almost. But what you'll see is that when I re add that column back in, I do lose those customizations that I've applied earlier. So you can see the most obvious one, the text is no longer center aligned.

So now for a very quick demonstration related to Resources Tables. If I go to the Resource sheet, we only have one table here. And we don't have any kind of chart on the rights. But again, if you want to insert an additional column of resource information here, so let's say you wanted something to the left of the max column, if I right click on that, and do insert column, I'm offered a list of resource related columns. So I could choose one of those. So, let's just say actual cost for argument's sake. So pretty much everything else works just the same when you're dealing with a Resource Table. You've even got a column formatting group up here as well. So if you need to, you can go in here and edit the field settings, and any of the font just like we could in the last table.

Now finally, let me just jump back to the Gantt Chart View, and go back to that View tab, and go into Table once more. And then I'm going to go to More Tables. Now if I wanted to create my own custom table, I could definitely do that by clicking on the New Button. And that brings up the table definitions dialog. So I could go in here and I could give my table a name. And for each field, I can specify alignment with title and so on. And in that way, I can set up a table that serves a particular purpose and possibly combines together exactly the pieces of information that I want to cover in a particular situation. So that can be very, very useful.

And one final thing, let's just cancel out of that. Now if we go back to the drop down underneath Tables, now if I've made lots and lots of changes to Tables, so maybe I've added fields, formatted columns done all sorts of things, you'll see that as an option down here called Reset to Default and that will reset the current table back to the default table. So that's it on Tables. I will see you in the next section.



## Section 12 – Gantt Chart

### Video: Formatting a Gantt Chart

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to take a look at Gantt Chart Formatting. Now, this is a topic on which we could spend an awful lot of time. And I don't propose to spend that much time on it. But I do intend to introduce you to some of the basic principles of formatting. And then if you need to format your Gantt Charts extensively, I'll leave you to experiment with the many tools that are available in Project 2019.

Now, when it comes to formatting, you really have two major options. There is a high level tool called the Gantt Chart Wizard, which can do an awful lot of heavy formatting for you and come up with some pretty smart standard stars for Gantt Charts. And then there is what you might call the manual approach to formatting a Gantt Chart. We've done a little bit of the manual approach already, I've demonstrated things like changing the font in the column. But the range of tools for manually formatting a Gantt Chart is actually quite impressive. And I'm going to show you a couple of examples of manual formatting. And then as I say, I'm going to leave the rest to you.

Now before we get started here, it is an important point, if you're going to work on formatting a Gantt Charts and you're just doing a small temporary change, and you know what you're doing, you may want to leave things as they are, or maybe just do an undo to go back to where you were. However, if you're planning on doing something that may be a major change, it's a very good idea not to work on the particular view, in this case, the Gantt Chart View. But to make a copy of it so that you can always go back to the original.

Now, I ought to qualify that just a little bit by the fact that if you look on the View tab in the Task Views group on the left, where the Gantt Chart button is, if you click the drop down, one of the bottom options there is Reset to Default. Now you might think, well, that will do the job for me. If it all goes wrong, I can just come in here and reset everything back to the default. And to some extent that is true. The problem is that the default really is the default when you first got Project out of the box if you like. So if you've done some formatting some time ago, you've been working on your formatted version for some time, and then you do a second batch of changes, and you want to go back to where you were after the first batch Reset to Default won't do that. It will take you right back to the beginning.

So it's like you're starting from scratch. So if I'm going to work on Gantt Chart View, and I want to make some changes to it, I would normally make a copy of it and then work on the copy. Now I'll come back to that in a few minutes time. Let's first concentrate on the Gantt Chart Wizard. What you're about to see is that the Gantt Chart Wizard is very easy to use. But you'll also see that it's not quite so easy to find. It's not actually on the ribbon by default. And for some reason, which is still unknown to me, Microsoft make it one of the items that's not shown on the ribbon.

So in order to use it, the first thing you want to do really is either put it on the ribbon, or put it onto the Quick Access Toolbar. So I'm going to add it on to my Quick Access Toolbar.

So let's go to the drop down. And we're going to jump down to More Commands. And we're going to go to the categories. So in the category, Command is not in the ribbon that sounds like where we're going to find it. And if we scroll down again, these are in alphabetical order, we should find one called Gantt Chart Wizard, which we do. And what I'm going to do is I'm going to add the Gantt Chart Wizard to my Quick Access Toolbar just by clicking the Add button and click on OK. And if you look now up on the Quick Access toolbar, you'll see I have my new Gantt Chart Wizard icon on the Quick Access toolbar, making it really quick and easy to use. So let's give it a go, let's fire up the Gantt Chart Wizard. And what this will do is it will take you through a short series of screens in which you make some fairly straightforward choices.

It's quite a high level tool, the Gantt Chart Wizard. But if you want to do something quickly, that will give you pretty smart results, it is a good option. So let's click on Next. And the next screen is what kind of information do you want to display in your Gantt Chart? Do we want standard information? Do we want to show the Critical Path? Do we want to show the baseline or do we want to show something else? Or do we want to show a custom Gantt Chart. Now I'll let you experiment yourself with some of these options. We're going to go for Standard and then click on Next.

Next we're being asked, what task information do you want to display with your Gantt Bars? The information that it's referring to here is in the words that are on the right hand side of each bar. Until now, we've not really looked at why those particular words are there and in fact, how you can control which words are shown. But for the purpose of this exercise, I'm going to say that I don't want any words to appear. So I'm going to select None. And click on Next. The next screen, do you want to show link lines between dependent tasks? Now note that when you are doing this, you're getting a preview of how things are going to look in this box on the left. So in this step, you can already see that the words have been removed, but the little lines are still there to show dependencies.

So if I select No, you'll see that those lines disappear. So I'm going to leave Dependency Lines Shown, and click on Next. And that's it really. So all I'm left to do with now is click on format it and it chugs away for a moment or two. And then you can just click Exit wizard. And there is my Gantt Chart formatted according to the choices that I've made. So that's a very, very straightforward way of formatting a Gantt Chart reasonably quickly. Let's now look at some manual aspects of formatting. Just before I do, let's undo what we've just done. So I'm just going to click the undo button on the Quick Access Toolbar. And we're back to where we were.

What I'm going to do first here is to make a copy of the current Gantt Chart View. So if I click on Other Views, go down to More Views, and with Gantt Chart selected, I'm going to click Copy. And it will make a copy of the Gantt Chart. So I'm going to give my new view a name. And I'm going to call it DA Gantt Chart. And the fact that I've put my initials on the start there makes it very easy to identify that that's one of mine. And I'm going to click on OK. And you'll see now in More Views, I have my DA Gantt Chart listed. So what I'm going to do now is I'm

going to apply it. So let's click Apply. So that's made a copy. And I can revert back to my original Gantt Charts whenever I want to. So let's start out with doing a little bit of formatting of the table. And note that what I'm currently working on is the Entry Table.

So the first thing I'm going to do, I'm just going to move this out of the way a little bit, is I'm going to select all of the columns from task name to predecessor. And I'm going to best fit all of those columns. So right click down to Field Settings, and select Best Fits and the widths of those columns are now adjusted accordingly. I'm then going to go in, and I'm going to hide the predecessors' column. And I'm also going to hide the work column. And then I think what I'm going to do is I'm going to center align everything in the finish column. So back into Field Settings. And I'm going to say align data to the center. And something else that we can do. Let's suppose that I chose all of the text under the Attire Summary Task.

So we're going to select all of those, I'm going to right click to bring up the mini toolbar. And I'm going to go in and I'm going to change the font to something else. So let's just select this one here. Not the nicest font in the world. But that doesn't matter too much. And you can see that that's only applied to the tasks that I've selected. Now what if I wanted to do a project wide change of the font, so let me undo that very quickly. What I can do is go up to the Format tab, and then go to the Text Styles option just here. It's the first one in the format group. And I could select the same font. Now I'm probably not going to get the same font. So I'm just going to choose a different one just here. And I could choose a font style, I could choose a size if I wanted to. So let's go to town, let's choose font size 14, and I'm going to click OK. And that will change absolutely everything on the project plan. And this looks pretty terrible, but hopefully you get the idea. So I'm going to very quickly undo that as well.

Now let's take a look at a couple of other options when it comes to formatting the chart itself. First of all, there is a Gantt Chart Styles Gallery, and it's this big gallery just here. Now there are quite a few styles. We've got some Scheduling styles, and we've got some Presentation styles and you might want to experiment with some of those to see which ones you like the most. And in general terms one of the key things here as we just saw with the table on the left is that you can either choose to style a particular bar or to change the style of all bars of a particular type. So in the Bar Styles group over here, there is a Format button. And you can see that we have two options Format Bar, or Format Bar Styles.

Now Format Bar will format the specific bar that you've selected, whereas Bar Styles will format all of them. So let's take a look at Bar Styles. And you'll see that this brings up a rather complex looking Bar Styles dialog box. And we can pretty much format every single aspect of a Bar Style. You can get really, really technical here. Now first of all, we have different types of objects. So we have straightforward task objects, we have splits, we have milestones, summary tasks, project summary, task, etc. Now with each of these, we can choose its appearance. And we can view or in some cases, change various aspects of how the bar appears. So let's take our standard task, which is what most of these bars represent. And you can see the color there, it's a kind of blue. So if I wanted to change the appearance, I've got a number of ways that I could change it.

So for instance, at the moment, there is no start symbol. So if I click on shape, I can choose the start symbol from this list of shapes if I want to. So I'm going to choose this one just here. And then what about if I wanted the same shape at the end. When I go to the group that says end, and I can select a different shape if I wanted to, but I'm going to keep it consistent and select the same shape, and click on OK. And you'll now see that I have those shapes added to the start and end of those task bars. Let's go back into Bar Styles again. So we've seen what you can do with the start and the end. But what about this middle section just here, shape, pattern and color? Supposing I wanted to make the pattern different. So supposing I wanted to make it stripy. So let's see how that looks. And click on OK. And there we go, we get a completely different look to our Task Bar. So, so many options in there, which will allow you to customize what you're seeing. So you can really set it up in whatever way that suits you.

And finally, as an example of that, what about the text that appears on the right? I've talked about that earlier on in the section when we're talking about the Gantt Chart Wizard. So let's see how we can adjust the text. I'm going to go back into Format, and down into Bar Styles. And you can see here at the bottom, we actually have two tabs, and we have been working on bars, I'm going to click on text. And currently it says on the left of the bar, there's no text. On the right, there are the resource names. On the top, nothing on the bottom, nothing and inside nothing. So supposing the instead of resource names, I'm going to show what about cost, we can just select it from the drop down. And again, we're in alphabetical order. So we're going to scroll to Cost. And click on OK.

Now we can see our Gantt Chart has updated and we're now seeing the Cost next to our bars. So you can probably see from all of those examples, just how flexible the formatting of Gantt Charts can be. You've got the style, you've got the ability to change the color, the shapes, the ends, the text on all the charts. And you can also do things like change the way that summary tasks are shown. So I'm going to leave you to have a little play around with that. That's the end of this section. I will see you in the next one.

## Section 13 - Notes

### Video: Adding Notes to Tasks and Resources

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to take a look at Notes. Now Notes can be applied to tasks or resources. And they're used for a number of different reasons. Amongst the most popular reasons for using Notes is that they are a means of communicating with other people.

So for example, if you're working on a project with others, and you say want to just leave a note for somebody, such as a piece of information, or something that's been agreed, or maybe a warning, something to be careful of, then a note is a really good way of doing this. So let's take a look at adding a note to one of the tasks on the wedding plan. So I'm in Gantt Chart View, and let's suppose that I've got a contact name and number for somebody who can print really, really nice wedding invitations. So I'm going to go down to task 19; Send out invitations, I'm going to right click, and one of the options in there is Notes. Note also that up on the task tab. If I just switch to that, in the Properties group, we also have a Notes button there. But I'm going to use right click in this case, and click on Notes.

Now when I enter a note, it's actually one of the tabs in the Task Information dialog box. So let me enter the content of the first note. So there's my Note. Now there are some formatting options here. Not particularly dynamic options, but there are a few. So for instance, if you look at some of the buttons, here, you've got a format font button, you can align and you have your left align, center align, and right align, you've got bulleted list, and you also have insert object, which means that you can even include a picture with your Note. But one useful thing to bear in mind with Notes, as I'll show you in just a moment is that it's a good idea to word or format the note in such a way that the beginning of the note gives you a good idea of what the note is about. And I'll explain that to you a little bit better in just a moment. So let's click on OK. And there's my Note.

Now, once I've added a note, the Note icon appears in the column that I have on the left there; the information column. Now if I hover over, you can see that note. So in this case, because my note is fairly short, I can see all of it. Ordinarily, if you have a much longer note, you'll only be able to see the first few lines. So that is why I say put the most important information at the start of the note. So you don't have to go into the note to see the full details. Now if I see that a task has a note and I want to open it up, obviously, if I just double click on the task, and go to the Notes tab, I can see that note.

And if you're wondering how you delete a note, so maybe you make a mistake, or you don't need that note anymore, there is no delete note button per se. All you need to do is highlight the text, hit the delete key to remove it and the note will disappear. And finally, just one other thing I mentioned that you can insert Notes for resources. And I'm sure you could probably work out how to do that for yourself. But let's go through it anyway. I'm going to jump across to the

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Resource Sheet. And you can see I already have a note in there for the photographer. But it's pretty much the same process.

I can click on any of these, right click and go to Notes. And I can then add my note into here. And one final thing to mention now just before I finish this section, when you come to printing, which we're going to come to in the next section, one of the options when you're printing certain types of information from Project 2019 is whether to print the Notes or not. So that's one to watch out for in coming sections. But as far as Notes are concerned, that's it for now. I will see you in the next section.

## Section 14 – Print Options

### Video: Modifying Print Options

**Deborah:** Hello again and welcome back to our course on Project 2019. In this section, we're going to take a look at printing. During the course overall, I'm actually going to look at printing twice. I'm going to look at it now. And then later on in the course, we're going to look at it again briefly in relation to printing reports from Project 2019.

What we're going to look at now though, is how you print the current view. So let's suppose that I want to print out the plan for the wedding. And not only can I print it to paper, but I could print it to an electronic documents, such as making it into a PDF file. Or I could print it, for example, into Microsoft OneNote. So to access the print function in Project 2019, we go into the File tab, which jumps us into that Backstage View. And then one of the options there is Print which will take you to the print page. Now on the left of the print page, there's a set of controls that I'm going to look at in just a moment.

One of the controls is the Print button. And if I click Print Now, it would print on the printer that's named immediately underneath it. And what it's going to print is previewed on the right, and it's this preview that I want to talk to you about first. Now just below the preview in the left hand corner, it says one of nine. So if I was to print this in its current state, I would get a nine paged document. If you look to the bottom right below the preview, there's a set of little wedges like arrows, and you can use those to step through the nine pages. So I can go across, and then back again. And I can go down and back up again.

Now what you'll notice is that if I click the one on the right, if you look at the page numbers as I do this is going to take me to page four, if I click on the left one to go back, I get back to page one. Clicking down takes me to page two. Clicking down again, page three and back up. And of course the reason for this and you can see it by selecting one of these three views the multiple pages view, which is the one on the right hand side, and it will show you there all nine pages. So you can see it kind of runs across the page. And this is how my wedding plan would appear if I was to print it out now with all of these settings. So you can see there how to preview what will be printed. So let's now take a closer look at these options that we have over on the left.

We have of course a number of copies option. You can either use these rollers to scroll up and down, or you can type a number into that box. And then as I mentioned just now you can choose the printer. Now exactly which printers you have available, will depend on the printers that you're connected to. But you will see an option in there which will allow you to print this to a PDF file. You also have options in there to print to OneNote, Center OneNote, and another application that I have snagged, which is a graphics application. So aside from printers, you do have some additional options in there. And PDF is probably going to be one that you'll use fairly frequently.



Now, if you wanted to add another printer, so maybe another printers arrived in your office and you need to connect to it, you can go into Printer Properties. And of course right at the bottom there, we also have an option to add a printer. So if you've got a new printer, or maybe a new printers arrived in your office, you can add it into the list by selecting that option and working your way through the setup wizard. Now below the printer options, you have another set of settings. And these settings enable you to specify exactly what you want to print. So for instance, I can say to print the entire project, which is what I have selected already. But I have some other options in that drop down menu. So I can print specific dates, print specific pages, or print custom dates and pages. And one of the options down there is whether you want Notes to be printed. Now I mentioned that when we were looking at Notes earlier on in the course

You also have an option here about whether you want to print all sheet columns. Or if you want just the left column of pages only. And I think these options pretty much speak for themselves but by all means give them a try. And if you want to or need to specify dates or pages to print, then you can use this set of controls just here. You can choose whether you want to print in landscape or portrait orientation using this control. And then finally, you can choose your paper size. So in the UK in Europe, the default is A4. In America it's generally letter. So you can choose whichever paper size is appropriate for you.

And finally, right at the bottom, we have a page setup link. And this brings up the page setup in this case Gantt Chart Dialog. Exactly what you get here will depend on the view that is current. Obviously, ours is a Gantt Chart. And here you can do things like adjust the margins on the page. So you've got a margins tab just there. And you can have larger or smaller margins, depending on the requirements to fit material onto pages. You can also for example, add a Header to each of your pages. Now at the moment, if I click on Header, if you look in the preview box there, you'll see that there is no Header. And in fact, if you look at the page behind, you'll also see that that's reflected; there is currently no header. So let's add a Header to our page.

Now the Header can be in three parts; a left part, a center part and a right part. So in the left part, let's put in the current date. Now you can't just go in and type in today's date, because that will essentially hardcode it. So it will always say today's date. So what you have in Project 2019 is a set of fields that you can include. So what we're going to do is we're going to go to the left one here, and we're going to insert a date, which is this little icon just here. So what that means is that by putting a field in there, and you can see it showing up in the preview as today's date, the date that's actually shown when you print this particular view will be the date that you printed it and that will update no matter when you print it. So that's the difference between hard coding a date in there, and using the date fields.

So in the right hand side, I might want to put the time. And in the center, I might want it to say our wedding. And if you look in the preview, you can see how that head is going to take shape when we click on OK. Now before I actually click OK to confirm, let's just jump over to the Footer tab. And the Footer already has some content. And the content there is a combination of something that's been typed, so the word page, and then a field which is the page number. And you can see this reflected at the bottom of the actual page. So we have page one, which is this,

the word page and then the field for the current page. And then this field here means the total number of pages. So in this case, nine. So that's how we get this Footer, page one of nine.

And again, these were just inserted using these fields just here and click on OK. And you can see now that we have our Header running across the top and our Footer. So there's lots of things in there for you to experiment with and to play around with and really get your page looking nice ready for printing. That's it for this section. I will see you in the next one.

## Section 15 – Tracking Progress

### Video: Tracking Progress Part 1

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to start looking at Tracking Progress on a project. We're going to use the wedding plan again, and I'm looking at version 13 now. We've saved a Baseline, and I'm pretty happy with the plan. But the first thing I want to do is to take a look at Project Information now. So let's click on the Project Information button on the Project tab.

Now, if you go into Project Information and click on the statistics button, what you can see now in the lower half of that dialog is that we have current figures for Duration, Work and Cost. We have Baseline Figures, which of course currently agree with those Current Figures. And then we have Actual Figures that are currently empty. And finally, we have Remaining Figures, which also agree with the Baseline and the Current Figures. This is the situation that you'll always be in just as you start to record progress on a project. You've saved the Baseline, but you've still got everything to do. So, that's the remaining. And you haven't actually done anything at all, yet the Actuals are all zero.

So what happens when you track progress is that you basically start to record Actuals. And as the Actuals increase, in theory, the remaining should decrease. And hopefully, when you get to the end of your project, your remaining will be zero, and your Actuals will pretty much agree with what was in your Baseline. Now, of course, if they agree accurately, that would be an extremely well planned and executed project indeed. But really, it's your intention to keep it as close to that as you possibly can. Now the other thing to notice in the top half of the same dialog is that you've basically got the first three lines the same. So the current start date for the project is Friday, March the first 2019. And the finish is Thursday, November the 21st 2019. And it's the same for the Baseline. We have no Actual start information. And we certainly don't have an Actual finish as yet. And the Variance indicate how much away from the Baseline we are.

Now let me close this statistics dialog, and let's go back to Project Information. Because the next thing we need to look at are the top right hand two fields; Current Date, and Status Dates on the project. Now, hopefully you won't be too surprised to learn that Current Date is supposed to be the Current Date. And this is being recorded on Tuesday, March the 19th 2019. If I want to change that date, I could. And I could use the drop down to do that and make a selection from the date picker. And particularly when I'm recording training material, it's really useful to be able to change the Current Date because I can pretend that it's any date that I like when it comes to recording the information in Project. I'm actually going to leave that day as it is for the moment. And one thing you'll notice is of course that the Current Date is sometime after when the project actually was planned to start.

And you'll realize by now, there's actually quite a cunning reason for that, because I'm able to look back at the first part of the project without lying to you about the Current Date. And we can

look at what's happened for the first couple of months of this project. And of course again, one very important point here is of course, that your dates are going to be different to mine. So I'm going to talk about things like choosing a date about a month after the start and choosing a date a couple of months after the start, Rather than looking at very specific dates. Of course, you could cheat the dates if you wanted to and use the same dates as me. The second date we're interested in here is the Status Date.

Now, if you work on a project almost without exception, you'll be recording the status of the project on a date other than when the status was actually recorded. Let me give you an example. A lot of the projects that I work on are IT or training related projects. Many of them are financial services related projects. And very often what we're dealing with is information that's been gathered either from project teams, managers, individuals, and typically it would be something along these lines; what was the status of your project last Wednesday. And by the time we come to put all of that information into Microsoft Project, it's usually a few days old. Now there are exceptions to that sometimes the information goes straight in.

In fact, if you use some of the other Project Related Tools, you can even get members of the team to enter their own Status and record their own Actuals. But usually what happens is you gather information up to the Status Date which may be a Wednesday or Friday, the end of the month, but you'll often enter it in on a later date. So when we're recording Status, when we're recording progress on a project, it's very important that you set the Status Date. Because what you're basically saying to Project 2019, is the information I'm giving you now relates to this Status Date. And for this instance, the first update that we're going to do is for a Status Date on, say, the 11th of March. So let's click on OK. And if you look at the Project tab, and in the Status Group, you'll see the latest Status Date just there. So you can see it says March the 11th 2019, which is the date that we just set.

Now we're going to do an update of the project. So we use the Update Project button in that status group. And the Update Project button will give us a couple of options. Now first of all, we can either say I want to update the workers complete through, and that means up to this date, so March the 11th 2019. And I can do one of the following, I can set it to zero to 100% complete. And what this means is that Project will look at a task and say, on this date, how much of it should have been done. Now for tasks that are way off in the future, the answer will be zero percent. For tasks that should have been finished, it will be 100%. And for something that's supposed to be halfway through, it's 50%, and so on.

Now Project will work that out for you and mark those tasks as being complete by the appropriate percentage. Instead, you can say set zero percent, or 100%, complete only. And what this does is it says, "If a task isn't due to have started, we consider it to be zero percent. It has been started, but it hasn't finished, it's still zero percent. It's only when it gets finished, when it's past its finished date that it will say 100%". Now sometimes that's a very useful way of doing things where typically you're working with a lot of very small tasks. And maybe you're not particularly interested in the percent complete of those many, many small tasks. But we're going to use the first option here on this occasion.

Now we have another option just here, “Reschedule uncompleted work to start after”. And then we could choose a date. And I'm going to talk to you about this a little bit later on. So let's just ignore that for the moment. And then we'll make a choice. We say, “Do we want to update this for the entire project, or for selected tasks”. Now for the first update or two, I'm going to update the whole project. So let's click on OK to run the update. Now, in fact, if I scroll up and down the project, you'll see that there are only two tasks due to have anything happened at all there. And the first of them was Agree budget and approach. Now it was due to start on Friday, March the first 2019, and finish on Thursday, March the 14th 2019. Therefore, it should have finished by the date that I set my Status Date, which in fact it has. And you can see I have a nice tick in the first column just there. The other task that's due to have started is this one, Make Guest List.

Now let's just open up the Task Information and have a quick look at something about that task. Because if we now look at its percentage complete, it's now got a percentage complete figure of 7%. And that's important because Project has made that calculation for us based on the duration of the task. Now a very important point. Sometimes you will update a project in the way that we've done here, and you'll look at the whole thing and say, Yep, it's all going to schedule and Project will automatically calculate all those percent completes for you. But in other situations, you may actually need to go through every single task and indicate for each individual task, what its percentage complete was. Now that can be quite a laborious task, but it's often a very, very important one.

Now once you start recording progress, there are some very good visual and other indicators of how things are going on. Let's stick with the Gantt Chart for just a moment. And if you look back at task ID number two, the one that's ticked the complete one. Note that the Gantt Chart Bar has a horizontal line a dark line through the middle of it. That indicates that it is in fact complete. Whereas if you look down at task 18 Make Guest List, we know that that's 7% complete. And note how it has a very tiny dark line in there, which just indicates we're only a small proportion of the way through the task. The other thing I want to do now is to change the table that we're looking at. So I'm going to go to the View tab, I'm going to go to Tables, and I'm going to apply the Tracking Table.

Now having applied that, I do need to adjust these columns a little bit to make them a little bit easier to see, and to read. So let's drag that over. And I think that will do. Now in the Tracking Table, you can see that we now have some Actuals. For instance, we have an Actual Start for Agree budget and approach. And in absence of any other information, it's currently Friday, March the first 2019. We also have an Actual Finish. And again, in absence of any other information, it's currently Thursday, March the 14th 2019. When we did that Project Update, because we didn't tell Project anything else other than the fact that all of the tasks were running to schedule, Project will deduce that the task must have finished when it was scheduled to finish, which in fact was March the 14th.

Now also notice that the task has a percentage complete of 100%, its actual duration was 10 days, the remaining duration is zero, And the actual work 160 hours. Bear in mind that two people working on that for eight hours a day for 10 hours. So that's 160. Of course the bride and the groom aren't charging their time. So there's no actual cost involved. If you go down to Make

Guest List task ID 18. In this case, we have an actual start, which is Friday, March the 15th 2019. But no actual finish, because the task hasn't finished yet. We have a percentage complete of 7%, we have an actual duration of one day, and a remaining duration of 14 days. And the other important point here, if you take Make Guest List as an example, Make Guest List is actually part of a summary task. And the fact that we've done 7% of that task means that we've done 2% of the entire guests' task and you can see there; 2% complete.

So that's our first bit of progress tracking. And we're going to do another bit in the next section. But just before we finish this section, just stop to the Project Tab again, and click on Project Information, and let's jump back into Statistics. And of course, now we have some Actuals listed in our Statistics. So for instance, if you look in the lower half there, we've got 176 hours of work. So some of these actual figures are now completed. And you can see there the percentage complete duration 2% work 8%. And also note in the top half that we now have an actual start date, but of course currently no finished date. So that's it for this section. Please join me in the next one.

## Video: Tracking Progress Part 2

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to carry on looking at Tracking Progress on the wedding project. And we're going to start by doing a more detailed, more manual updates on progress. Now, I'm going to record progress up until the end of April 2019. And I'm doing it today, which is March the 19th 2019. And don't forget that that vertical line you can see running there is the Current Date as far as Project 2019 is concerned.

So the first thing I'm going to do then is set a new Status Date. And if I go to the Project Tab, remember, we can see our latest Status Date up here. And previously, it was March the 15th 2019. If we click on that, we can set it to a new date. And as I say, we're going to update the status until the end of April. Now before we click on OK, there is one thing that I want to mention. First of all, it's very important to recognize that when you're dealing with Manually Scheduled Tasks, things do work a little differently. For example, if I update progress on the manually scheduled task, and it has manually scheduled successes, if for instance, I show a significant delay on the first task, Project will not reschedule subsequent tasks. The scheduling of Manually Scheduled Tasks is up to you.

Project only manages the scheduling of the Auto Scheduled Tasks. So be very careful when you're dealing with Manually Scheduled Tasks, what the effects of progress tracking are. Now we're fortunate that in this wedding plan, we have no Manually Scheduled Tasks. So, the problem doesn't arise. But it's a very important point to be aware of. The other point to be aware of is that when we came up with this final plan, to get started, we pretty much fixed on that wedding date. And it was based on taking all of the work on the schedule, and giving ourselves a nice contingency before fixing that date.

Now once we fix that date, we may or may not decide to leave that contingency as part of the dependency between the preparation phase of the project and the wedding day. But one thing I absolutely do want to do is fix that wedding date so that we don't inadvertently reschedule the wedding day once we start recording progress. So I'm going to click on OK, first of all to set our Status Date. And then I'm going to scroll down to the wedding date task, which you can see here is currently set on November the 21st. And I'm going to double click on that task to bring up the Task Information. And what I'm going to do is I'm going to change the Constraint type. And I'm going to say that the wedding day must start on and then I'm going to fix that date that we have in the schedule, so November the 21st. So let's pick that from our date picker. So all the way through to November, and 21st. And click on OK. And what you'll get is a warning message from the planning wizard. And as I mentioned before, you'll see this pop up from time to time.

So in this case, we're putting on a “must start on constraint”. And all that's happening is the planning wizard is saying that this could result in a scheduling conflict either now or later. Now on this occasion, because we're not trying to make this a day earlier, we already know that we can achieve this state. Then, I'm going to click on the third option, Continue and click on OK. And now we have the wedding day fixed for November the 21st. Now we've still got our 21



working day contingency. And we may need to use some of that up if progress doesn't go well. But we're fixed currently on November the 21st. So now it's time to track some progress. So we've set our Status Date correctly on April 30 2019. And the Current Date Today is March the 19th 2019. So let's look at the tasks that have been in progress. First of all, we already know that Agree budget and approach is complete that was marked as complete on the previous progress update. Let's turn our attention now to Make Guest List. Now Make Guest List is now also complete. So that's good news. But how do you mark something as complete?

Well, there are a number of ways of doing it. If you go to the Task Tab, and within the Schedule Group, there is a set of buttons with significant percentages complete on it. So you can see these ones just here zero percent complete 25, 50, 75 and 100. Many people only really record the level of completeness with this sort of granularity. And marking something as a 100% complete, just click on the hundred percent button. And that task is now complete. And we can see that by looking at the task bar on the Gantt Chart, you can see that darker colored blue line running all the way through the middle, which indicates that that task is 100% complete. Now you have a number of very other useful buttons in there. You have a Mark on Track button. And if you hover over it, it says, "Set the scheduled tasks so that they are on schedule per the Status Dates. And you can set the Status Date on the project tab", which we already know. Now let's move on to another one of the tasks. Let's move on to Make Reception Venue Shortlist, which is down here task ID 24.

Now, if I zoom out very slightly, so that I can get a good look at this task on the Gantt Chart, I can see that it is almost complete. So our Status Date is the end of April, remember, and this task goes very, very slightly over that. So I might not want to set it to 100%, I might want to say that it's 75% complete. So I'm going to go up to my Schedule group, and I'm going to click on 75%. And you can see that that's roughly about right. Now let's go back to Select Wedding Dress. Now at the end of April, that should have been probably about half done. So let's suppose that our update is actually 50% done. Now I'm going to do this a slightly different way, I'm going to double click to bring up the Task Information. And if I click on the General tab, there is a percentage complete option just here. So what I can do is I can mark this as 50% complete, and click on OK. And again, if you look at that dark bar running through the task, you can see that it's about halfway indicating that this task is 50% complete. So there you can see there are a couple of ways to mark things as complete manually. So let's now jump down to another task and we're going to go to Make Caterer Shortlist.

Now the Make Caterer Shortlist should have been completed by now. But we haven't made as much progress on it as we'd like. So if I look at the bar there, I'd say we've probably achieved about 85%. So what I could do again, is double click to go into Task Information. And I can manually enter whatever figure I like in here. So remember, using the buttons up on the task ribbon, you only have the option of 0, 25, 50, 75, and 100, which is a little bit restrictive if your task completion doesn't fall within those buttons. But here, I can manually enter 85% if I want to, and click on OK. And I can see that that looks roughly about right. And now let's scroll down to Make Wedding Venue Shortlist. And I can see I'm running a bit behind on this one. And the

progress there at the end of April would be I'd say roughly about 25%. So I'm going to use my buttons on the ribbon this time. And I'm going to select 25%.

Now with all the other tasks, we have no progress to record. So let's just see how that looks on the project overall. Let's go back to our Project tab and into Project Information. And let's jump straight down into Statistics. And you can now see the Actuals at the bottom there. So in terms of percentage, we have percentage complete, duration 15%, and work 29%. So having done those updates, which gets us up to the end of April. What I'd like to look at now is another view and the view that we're going to look at is called Tracking Gantt View. So let's jump back into the View tab, click the Gantt Chart, drop down and select Tracking Gantt. Now when we go into Tracking Gantt View again, it's very often the case that we need to change the width of some of these columns so we can see everything fine. But a quick way of doing this to get everything nicely resized is if we go to the View tab and click on Entire Project in the Zoom group, that's going to space everything out nicely for us so we get an overall view of the project.

Now if you look for example, at Agree budget and approach, which is a completed task and we can see the tick in there, you'll look at the taskbar and you can see that it's now in two parts. There's a bottom bar, which is basically the Baseline. And there's a top bar, which is the Task Progress. And for that particular task, of course, both are at 100%. But if you look at Select wedding dress, you can see the Baseline at the bottom, And the Task Progress at the top. Now, it would be quite reasonable at this point to carry on with the project, keeping an eye on the things that are running late. But in many ways, a more realistic approach is to look at the current situation. And say, what we really need to do now is to do a bit of a reschedule at this point. Let's take into account the fact that some of the tasks might be slipping behind a little bit. And let's reschedule the project.

So let's say that we've recorded progress up until the end of April. And now we want to reschedule the outstanding work. Now, that's one of the options on the Project Update tab. Now, we've still got the Status Date of April 30 2019 currently, but we're going to click on Update Project. On this occasion, what we're going to say is, "Reschedule uncompleted work to start after April the 30th 2019". And we're going to do that for the entire project. So let's click on OK. And that work is rescheduled.

Now, in the process of rescheduling, what then happens is that we get not surprisingly, a resource issue. And we've got some over allocations in the column on the left. So let's see if we can resolve these resource allocations without delaying the end of the project. So if I go into Resource and Leveling Options, and I'm going to level only within available Slack, which is this checkbox just here. And I'm going to stick with Level Entire Project, and I'm going to click on Level All.

Now Project finds it has a problem with a particular over allocation. And what I normally do in this case is to skip any of these flagged problems and aim to deal with them separately if they remain. So on this occasion, I'm going to select Skip All and you can see that it has managed to resolve some of the allocations, but we still have a few outstanding which would have to go in

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and manually resolve. So it's always a good idea to keep an eye on the Tracking Gantt. Now that's it for this section. I will see you in the next one.

## Video: Exercise 07

**Deborah:** Hello again, and welcome back to our course on Project 2019. It's now time for exercise seven. And it's going to be a little bit tricky to set this exercise because the dates are very important. And you'll be working your way through this part of the course on a completely different date to the date that I'm recording it. So I'm going to describe this in terms of the start of the Bathroom Refit project. And I'm looking here at the very early stages of the project.

Now the project for me has a start date of the first of March. And we can double check that by going into the Project Tab, click on Project Information, and you can see there the start date, Friday, March, the first 2019. And the updates that I need you to do are going to be after one week of the project, and then after two weeks of the project. So in my case, I'll be setting the first status update to Friday, the eighth of March, and the second status update to Friday the 15th of March. So that's two weeks into the project essentially.

Now let me describe what the update is on each of these dates. First of all, after one week of the project, all of the tasks on the planning will have been completed on schedule. And in fact, task 11 and 12; Get contractor recommendations and Make contractor shortlist they will have been completed on schedule. But with task ID 13 Get contractor quotations, this is actually going to be ahead of schedule. And it's going to be 50% complete at the end of the first week. So your first update is to get to that point as though you're updating progress as of the end of the first week.

However, during the second week, there is no progress at all on anything. So let's imagine that I'm sick and I'm confined to my bed, and I don't do anything about anything. So when I come to update for the second week, so in my case, that would be March the 15<sup>th</sup>, I just need to reschedule everything to start the day after the end of the second week. So during the second week, no progress at all, I'm basically going to reschedule what's left.

So in my version, and that's exercise 07 A, I'm starting with an end date of April the 16th 2019. And you'll see on my answer in 07 B what my end date is and you're going to need to do the same. And just check that your answer is compatible with mine. And don't forget, of course, that one option that's open to you is to use the same dates as me and then you'll be able to make a pretty good match on making sure that the shape of the project looks the same as the end date comes out at the end of the date I have in 07 B. So that's the end of this section. I will see you in the next one.

## Section 16 - Reporting

### Video: Reporting - Part 1

**Deborah:** Hello again, and welcome back to our course on Project 2019. And in this section, we're going to look at some of the general principles of Reporting. And then in the next section, we'll look at customization and the creation of new reports in a little bit more detail.

Now, generally speaking, the Reporting we're looking at applies to the currently open project. And if I jump up to the Report tab, on the ribbon, you can see I have a main group in the middle there; View Reports. And that's mainly what we're going to concentrate on in this and the next section. On the left there, there is an option for Compare Projects whereby you could compare two versions of a project. That's out of the scope of this course, although it is a very useful facility. And on the right there is a Visual Reports button, and that gives you access to Project 2019's visual reports. And these enable you to use Microsoft Excel, or Microsoft Visio, to do detailed analysis and reporting on the data from your projects.

So if you have either or in fact, both of those products, it's a very good idea to get into Visual Reports and take a look and see what they can do for you. But those are also out of the scope for this course, partly because you need to be familiar with Excel or Visio to take advantage of them. Now we're going to concentrate on the main body of reports. If you've used a version of Project before, so maybe 2013 Reporting, in those earlier versions, there was a very different reporting tool to now. And if you look at the reporting facilities in Project 2019, having been used to one of the old versions, they'll probably be virtually unrecognizable to you.

Now first of all, I'm going to click on the Dashboards button. And there's a list of five dashboards. We'll look at one or two of those a little bit later on. But right at the bottom, there is a More Reports button. And More Reports basically shows you all of the options that you have in that view reports group, because the options down here correspond to the buttons in the view reports group. So the first option on the left, Custom, gives you access to any custom reports that you've made. And in fact, in exercise eight is going to involve you making a custom report. Then it gives you access to Dashboards, the Resource Reports, the Cost Reports, the Reports on work in progress, access to some Getting Started information, and then the facility to create new reports. And then there is a link through to Recent Reports.

So the first thing we're going to do is look at one of the dashboards, and we're going to look at Project Overview. So there it is, let's click it. Now the first thing to point out is that your Project Overview, may well not look exactly the same as mine. And you'll see why during this in the next section. But let me just describe this report to you in the broadest terms first. The report itself is made up of a number of components. And you notice that at the moment, when I've opened the reports, I have a contextual tab on the ribbon. So here we have report tools, and a design sub ribbon. If I click on one of the components of the reports. So if I click on the chart just here, you'll see that not only do I have the report tools, contextual ribbon, I also then get a

Chart Tools ribbon as well with two sub tabs design and format specifically related to the item that I clicked on, in this case, the charts.

And I also have on the right hand side, a field list pane that's opened up so I can go through and make some nice customizations there as well. But for now, I'm just going to close that field list down. So it's worth bearing in mind that wherever you are clicked, you'll get those contextual ribbons. If I click on the table just here, you'll see I get a Table Tools Ribbon at the top with a Design and Layout sub ribbon so I can make any changes to the design and layout that I like. And that's because I am clicked on what is essentially a table. So, those contextual ribbons only appear when they are needed. Now when you're working on customizing a report, sometimes you may want to customize the whole reports or the overall design of the whole report.

So sometimes you may want to work on the individual components. And the tools you have for each component depend on what sort of component it is. And if we take for example, our charts. Again, you can see you can work on the design and format of the charts in many different ways. So for example, you can certainly do things like change the Color Scheme, you could also change the Style if you wanted to. So let's go a bit crazy and select style eight. And you could turn it into a different sort of chart if you wanted to by clicking Change Chart Type. And I could have any one of these charts if I wanted to. Now going back to what I said right at the beginning of this section, once you've got those general principles, there is really a huge amount that you can do in reports to customize the standard reports and create your own.

So let's first look at the design of the report Overall. If I click away from any of the individual components, I'm back to just having the report Tools Design tab. And working from left to right, there is a Themes group, where I can change the overall Theme, Colors, Fonts and Effects of the report. And if I click on the drop down in the bottom of Themes, it opens up the Themes Gallery. So I'm going to go through and I'm going to apply a different theme. And let's apply ion. And there we go, I get a completely different look and feel to my reports. And then what I could do if I wanted to if I wasn't happy with some of these colors, I could go in and change those individual colors. I could also go in and change the font, so maybe I want it back to Calibri. And I could also apply some different effects if I wanted to.

So that's one aspect of the overall design of the reports. Another aspect is you might want to add new components to the reports. So for instance, you might want to add another chart. So if I click on Chart just here, it lets me choose a particular type of chart that I want without committing to a particular type of data. So let's assume that I wanted to insert a pie chart related to something. If I click on OK, it appears and then as you'll see later, what would happen next is that you would decide what data you wanted to show and how you wanted to format that pie chart and so on. But at the moment, let's just delete it. And we'll come back to those individual components later. We then have the Report group. And one of the options there underneath manage is the Organizer. And we're going to come back to that later on as is a very important part of Project 2019.

Now, if you've got this report the way that you want it, and you want to include it or insert it into another document, you have a Copy Report button. And that copies your report to the clipboard, and then you can paste it into another documents. If you're planning to print the reports, either to

a printer or perhaps into a PDF or something like that, you also have some Page Setup Options here. So let's suppose that I said well, I want to do this. But with wide margins, I could go down to margins and select wide. And when I print that, I'll get wider margins down the side. And I can check that if I go into File, and down to Print, I'm going to see a print preview of exactly what will print out. Now I can see with those wide margins, I'm not sure about those. So I might have to do a little bit of maneuvering to get that to fit on the page. Because I can see that with my default down here of A4 paper size, it doesn't quite fit.

So you might go back and you might decide to set those margins to narrow and then check. And I can see that yes, that looks a lot better. It's now fitting everything onto that page. So you can kind of adjust these Settings as suited. So they're the main options when it comes to the design of the reports overall. Now, I'm going to go and copy this report to the clipboard by clicking on Copy Reports. And let me just demonstrate dropping that into a PowerPoint slide. So let's pull up a blank PowerPoint slide. So there's an empty slide and if I right click and select Paste, you can see that there is my report. And having dropped it in there, I still have the individual components. And if I want to move things around within PowerPoint, I still can. So I can grab this table and I can drag and drop it and reposition all of the elements.

So that's the end of this section where we've looked at the design of the report overall. In the next section, we're going to look at the design and formatting of individual components. So please join me for that.



## Video: Reporting - Part 2

**Deborah:** Hello again, and welcome back to our course on Project 2019. In the previous section, we started to look at Reports in Project 2019. And in this section, we're going to continue looking at Reports. And the first thing we're going to do is to look at formatting some of the individual components of the Project Overview Reports.

Now, as I mentioned at the beginning of the previous section, I'm going to show you some general principles here. And you can pretty much apply these principals to all of the standard reports, all of the customized reports, so on and so forth. Now, there is an awful lot that you can do to customize reports and make them your own. So it would be really helpful if you can find the time to get yourself some practice, and build up some experience of creating and customizing reports. So first of all, let's look at the title here Project Overview. Now, if I click within that, it will select the individual component, which is actually a text box. And when I've clicked in there, you'll see that the Drawing Tools Format tab has now become available on the ribbon.

Now once I select that Format tab, you can see the range of formatting options that are available to me. So I can do things like change the Shape Styles, Word Art, I can do Text Fill, Shape Fill, and so on. So I can format that heading in pretty much any way I want. The other thing that I can do is that if I click in here, I can just change that text if I want to. So what I'm going to do is I'm going to change this to Wedding Project. And I'm going to give this a background as well just to make it stand out a little bit. So I'm going to go up to Shape Fill, and I'm going to select this light green. So that it matches what we have in the rest of the report. I could also highlight and right click, and I get my mini toolbar. So I can make changes to the Font, the Font Size, so on and so forth, just here. And also I have my Alignment Tool. So I could align to the left if I want to which I actually think looks slightly better. And what I'm also going to do is just drag the bounds of this project box down, just so it's kind of centered vertically in that box. So lots of different changes that you can make there.

Let's now look at this table underneath. So I'm going to click on the Table. And again, you'll see I get a Table Tools Contextual ribbon with the Design and Layout sub ribbon. So what I'm going to do is I'm going to actually change this Table Style. So you can see here in the drop down, I have lots of different styles that I could select. So I could go for something completely different like that. Or if I wanted to stay within the same kind of green family, I could possibly choose something that looks like that. So I actually think that looks quite nice. We will stick with that. So if we click on Milestones at the bottom, which currently doesn't have anything showing, you'll see that we get this field list of the side. And if I was just to close that and show you how we can reopen it. If you go up to the Table Tools Contextual tab, click on the Design tab, you'll see we have table data on the end.

So that's a way of toggling that Field List off and on. And from there, what we can do is we can customize the table that we're currently clicked on or the object should I say in the report that we're currently clicked on. So at the moment, I have a filter applied to this that says, "Milestones due this month". Now, this is clearly telling me that according to my Gantt Chart that I don't

currently have any milestones that are due this month. So let's change this filter and change it to All Milestones. And you can see now if I scroll down, I now have a table that's full of all the milestones that we have marked in the project. I can choose to group them. So currently I have No Group. But I could choose a group there if I wanted to. And I also can choose an Outline Level.

So currently, it's set to all sub tasks. But I could choose just to show level one, and you'll see that item updates. Or maybe I'll choose level two. Or maybe I want to put it back to All Subtasks. Now remember, everything that I'm doing here all the customizations and filtering only applies to the object that I'm currently clicked on. So in this case, this Milestones Table. So that's how you can customize data in this particular table. And you could in fact, practice this on this late tasks table just here. So maybe you might want to take away one or two of those columns, or maybe put in one or two extra ones. Or even back here, on this percentage complete table, you might want to make some adjustments using the field list pane as well. So a couple of additional points to make here.

One of them is that given the field list on the right at any time, if you want to move it out of the way, obviously, as we saw, you can just close it by clicking on the cross, and then reopen it again by clicking on the Table Data button. And when you're working on a table, don't forget that you also have a Layout Tab up here. So you can do things like change the text direction, you can sort out alignment in the table cells. And you can work out the widths and heights of rows and columns, and so on. So you've got a really good powerful set of table formatting, table layout tools to work with as well.

So finally, let's look at one other type of object that we have here, and that's the Charts. And I can still see the field list, which I am going to drag out and make a little bit wider. And I can also see what's actually shown on my chart. So you can see here we've got percentage complete ticked. And you can see that we have that on our charts. And if I go down, you can see that we also have actual work ticked, which is also showing on my charts. So if I want to switch this up and change what I'm seeing, it's just a matter of going into the field list and selecting the fields that you'd like to see. So if I untick actual work, you'll see how that changes the charts. So hopefully you get the idea based on that.

Now, what I have here is a very simple column charts. It's not too exciting, not particularly interesting. So I'm going to do a little bit of work on how it looks. So I'm jumping up to Chart Tools and I've got my Design and Format tabs here. So on the Design tab, let's go for something a little bit prettier. So what's this one here? Style seven. Okay, so that looks pretty nice. Now some other formatting that I can do up here is I can click on the Design tab, and I can go to Add Chart Elements. And I can add any of these elements of the charts. And if you've used charts in other applications, like Excel, these are exactly the same options.

So maybe I decide that I don't like the legend being where it is, I could go down to Legend, and I have the choice of removing the legend entirely, placing it on the right, the top the left or at the bottom where it currently is. I'm going to switch that to the top. So very simple to make quick changes like that. I could also go back to Add Chart Elements. And I could say I want some axis

titles. So if I click on primary horizontal, you'll see I now get a text box where I can add in my axis title. So this might be something like Tasks. And then let's keep things consistent. Let's go back to Add Chart Element, Axis Titles and do vertical. And this appears kind of on its side, which makes it a little bit strange when you're trying to type. But this might be a percentage that will do fine. So hopefully from that, you get the idea of how you can format different elements of that charts.

I can also go back up to Design and do things like change the Color Scheme if I wanted to. And from the Format tab, I can start to change individual elements. So maybe I decide that I don't particularly like these orange bars, they clash a bit with the yellow that we have down here. I could go up to Shape Fill, and I could select any one of these colors that I want just to make it a little bit nicer to look at. So having shown you quite a bit there about how to format reports. Let's go back to Reports again, and let's take a look at one or two of these other dashboards. Now with many of these, for instance, the Cost Overview, the way they've been set up is hopefully in a way that will appeal to most people. But of course you know how to customize that if you need to.

So Cost Overview gives you a Cost Figure, a Remaining Cost and a Percentage Complete. Now of course with the wedding project, what's happened so far is that it hasn't involved directly spending any money. So although the project is marked as 14% complete, we've still got all of the remaining costs to incur. But you should be able to see with how we come up with those figures there in the Cost Status Table. You can also see charts and this one up here, it shows us the progress versus the cost, and then the one below the cost status.

Now, in this case, once you start to look at these charts, you'll start to get an understanding of how they work. And you'll see that the blue line generally way above the orange line indicates that work tends to be ahead of cost. And a lot of the cost comes towards the end of the project. So early on, we're doing a lot of work without incurring too much cost. Now, each of these dashboards is a summary in some sense. And if we go back to Reports, again, you can look at Cost Overview, Project Overview, Upcoming Tasks, so on and so forth. And then Other Reports include something called a Resource Overview, which gives you resource statistics, for example, for all of your resources. So you can see the bride and groom's actual work. So you can see here very clearly in the resource stats, the actual work is shown in blue for the bride and groom. And the remaining work is shown in orange. So you can see they've got quite a bit of work left to do at this stage.

So lots of interesting things and lots of interesting information you can glean about your project from these different report types. And I would recommend taking some time to work through all the standard reports if you can. And also don't forget to refer to Help for additional and alternative explanations of each of the reports. Now one of the things I mentioned to you before was that I was going to show you how to create your own reports. And I'm going to do that as part of the next section where I'm also going to be setting you exercise eight so please join me for that.

## Video: Exercise 08

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, I'm going to set you exercise eight. And in exercise eight, you're going to create your own reports.

Now the name of the report will be My Management Summary. And I just want three things in the report. And I'll show you my answer in a couple of minutes. But let me first of all take you through the creation of the report and how we put those three components into the reports. So first of all, if I go to the Report tab on the ribbon, and click on New Report. I have a choice of starting from a blank report starting from one with the charts, starting from one with a table, or I can start with a comparison.

So we're going to start from a blank report. And the first thing it does is to ask for a name. And I'm going to call mine my initials and demonstration. And click on OK. So first of all, all I've got here is basically a text box. And if I want to change the wording there, I can do that just by clicking in the textbox and making some changes. And if I want to format that textbox, it's pretty easy, I can go up to my Drawing Tools Format sub tab, and I can format it accordingly. So I'm just going to go up and I'm just going to add a Shape Fill. And I'm going to stick with my green theme. And just select a light green color, like so.

Now when it comes to adding the components that I want to add, if for instance, I wanted to add a chart, I could go to the Report Tools Design Ribbon, and click on Charts. So by default, I get a clustered column. Now if I don't fancy using that one, I can choose any of these other charts that we have in the left hand menu. So I could change it to a line graph, or maybe a pie chart, it really depends how you want to display your data. So let's select pie charts, and click on OK. And it comes out quite small. And by default, I get certain data in that pie charts. Now look carefully at the field list on the right hand side. What I have at the moment in there, if you look down to the bottom at the filter, it says Active Tasks.

So it's only showing me the tasks that have started but not completed. And you can see that by the grouping listed below. And then I have the Outline level of all sub tasks. And it also says No Sort at the bottom. So that's a small little pie chart, not a particularly useful pie chart in this case, but I could choose to resize it if I want to by dragging the handles out. And notice not only does it resize the pie chart, but it also resizes the Legend that we have underneath here. And now that I have this pie chart, I could choose to select these headings. And again, I could go in and I could format those so I could go to the Format ribbon. So now that I have my pie chart, and you may want to do some further formatting on this, I can just drag it around and move it and just make it so it sits neatly underneath that heading.

Now what I'm going to do is to insert a Table. And now what I'm going to do is insert another element into my report and I'm going to insert a Table. So again, up to the Report Tools Design sub tab and select Table. And then we have my first little table which I can drag around the screen and drop it wherever I like. I have my resize handles so I can resize that table as well if I want to. Now at the moment, this table is working at the project's summary level. And again, if you look down in the field list at the bottom, you can see that the filter applied is All Tasks.

They're not grouped. And the outline level is project summary. And you can see just above in the Select Fields area exactly what we have showing in that table. So we have named it so we have a name column. And if I scroll down, you can see finish, you can see start, and we also have percentage complete. So say I wanted to remove for example, the start date column.

Now you know how to do that if we go to the Field List, you can unclick start and that removes the column. The other thing to bear in mind is that the order of these columns in the table is governed by this little section down here. So in the field list right at the bottom, you can see we have Name, Finish and Percentage Complete. So if I wanted percentage to complete to show in the column after the name column, all I need to do is grab it by clicking my mouse and drag it in between those two. And you can now see that we have Name, Percentage Complete, and Finish. Now in the Group By section currently I have no group. But I could change that if I wanted to, to group by duration. Or maybe I want to group by active versus inactive. And I'm just going to put that back to No Group. And you can see that because my outline level is currently level one, it's showing me all of those level one phases of the project and the percentage complete, and the finished date.

So again, I could make some changes to the outline group, and say, All Subtasks. And that gives me a different way of looking at this table. Or I could just take it back to Project Summary. And what I'm probably gonna want to do is, once I've got this, how I want it to look is move this into a nicer position. So maybe I want to put it directly under our charts and just resize it so everything fits in nicely. So you can start to see there, how we're building up a custom report. So now that I've done that, I can open up this report at any time. And I can do that by going to Report, going down to Dashboard, and More Reports. And underneath custom, you'll see any reports that you've created in there. So you can see my DA Demonstration is listed there. And when I click on it, it's going to load that particular report. So nice and easy.

Now one final thing I might want to do here is I might not want to call it DA Demonstration, I could go in here and change this to My Management Summary like so. Now having made my report, it's basically there and I can use it, I can open it at any time. And in a later section, I'll show you how you can share it with later projects. But let me go now to my answer to this question. And there is My Management Summary. As you can see, I've got the heading management report. The pie chart shows the baseline cost for each of the four phases of the bathroom refit. And note that one phase doesn't involve any costs, there are only three slices of pie with costs associated. And the completed task table on the right again, note the heading there, which isn't actually part of the table Of course.

It has three columns Name, Actual Finish and Baseline Finish. And the hierarchy is shown and the contents of that table is sorted by Actual Finish. Of course, that's actual finish within the higher level summary tasks and phases. So for instance, within planning, it's in order of Actual Finish and then again in contractors it's also in order of Actual Finish. So that's my answer for exercise eight see how you get on with that. That's it for this section. Please join me in the next one.

Project 2019

## Section 17 – Tracking Cost

### Video: Recording Cost Manually

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to look at tracking costs on a project. And that is partly at least in preparation for the next section. Now earlier on in the course, we did a little bit of progress tracking, and we marked three or four tasks as being complete. And you can see those with a tick next to them in that left hand column. And we did an update to the end of April.

Now what I want to do is sort of leap forward in time now, and I'm going to leap forward in time to the end of June. And I'm going to pretend that June has come and gone. And I'm doing an update on the wedding project to the end of June. Now, first of all, let's take a quick look at the Project Information and jump down into Statistics. And what you're seeing here at the moment are the actuals for duration and work. But we currently don't have any actuals for cost. So none of the activities so far have involved parting with any money. Now there is a very important point to bear in mind as we do the next progress update.

Let's close that and jump back into Project Information. And I'm going to set the current date, which in reality is Tuesday, March the 19th 2019. And I'm going to set that forward to June the 19th 2019. And I'm going to set the status date to the end of May, I'm going to click on OK. And I'm going to do an update. And I'm not going to go through all these steps because you've seen it quite a few times before. So what I've done here is to record the progress. And as I said, just now basically the progress is going to be a little bit behind what we intended. Now I want to look back at Project Information and jump back into Statistics. And if you look at the duration for the Baseline, it says 190 days duration and the actual 61.43, so about 61 days. So we've done probably about 40 42% of the actual work. But so far, we've only incurred costs of about \$60, which doesn't sound quite right, or there is a reason for this.

Where you have a task cost that will be accrued, that will go into the books in the same way that the work and the resource work on a task goes into the book. So I'll show you that in a moment. But where you have cost resources, and resources assigned to a task, even though when the task is complete, the cost of the work resources is accrued. Bear in mind, it might have been accrued right at the beginning of the task, but certainly when it's complete, it will have been accrued. So the cost of the Cost Resources is not accrued when you have both on a task. And what you have to do is go in manually and record those actual costs. Now to be fair, it's very often the case when you're dealing with costs, particularly estimated cost that you need to go in and record what you actually spend anyway.

So for example if you budgeted \$400, for something, it's probably quite rare that it will actually cost exactly \$400. So to some extent, it's very likely that you'll need to go in and put in a manual cost anyway. So now I'm going to go through the tasks in the wedding project where the cost of the cost resources should have been accrued. And I'm going to record those actuals. And I'm



going to do this from Task Usage View. And again, let's just adjust these columns very slightly so we can see what we're looking at. And I'm going to jump down to Wedding Venue.

Now the Wedding Venue is a resource, and if I right click my mouse in the details column just here, I'm going to show the cost and also the actual cost. And again, I'm just going to widen that column very slightly. And let me just drag my scroll bar across to the point where the actual task was happening. You'll notice there that that was the cost; \$3,500 is what we budgeted. Now if I hover my mouse over Wedding Venue and double click and jump to the tracking column, you can see at the bottom here I have an opportunity to enter in the actual cost. So I'm going to say that where this venue is now going to cost \$4,500. If I just quickly jump back to general you can see the original cost of we budgeted of 3500, but the actual cost is actually going to be 4500. So we're essentially 1000 over and click on OK.

And you can see now that I've recorded my actual cost. And basically, when you're entering actual costs for cost resources on a task, that's a really popular way of doing it. But it's not the only way of doing it. Now, you can see here that the actual cost rolls up to the task itself. So where we have Book Wedding Venue, you can now see that that's rolled up and it's added that 4500, so it will roll right up to the project level. Now what I'm going to do is go through the other cost resources that have been incurred according to the updates. And once again, you'll hear again from me when I've done that.

And finally, as far as tracking costs are concerned, if we go up to the Report tab, there are a number of cost reports that you could try if you wanted to. So for instance, we have a Task Cost Overview, a Resource Cost Overview, Cash Flow, and so on. So it's definitely worth having a little experiment with some of these to see if you find them useful and helpful. So that's it for this section. I will see you in the next one.

## Section 18 - Organizer

### Video: Organizing Views

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to take a look at the Organizer. And this is a very useful feature of Project 2019, whereby we can manage a number of entities including Custom Reports, Custom Views, Tables, and also Program Code.

Now, when we looked at Views earlier on, I showed you how to make a Custom View. And I'm going to revert back to a Custom View that I made earlier in this course. And I'm going to apply it here to the wedding project. So we're going to jump back into View, we're going to go down to Other Views and More Views. And I'm going to select DA Gantt Chart, which was my custom view that I set up and click on Apply. Now if I had that view in this project, and I really like it and think that I would like to be able to use that view in other projects, then how do I transfer it from this project for use in another project? Well, this is where we use the Organizer.

Now what I'm going to do is I'm going to go into Backstage View. And on the Info page, one of the options is Organized Global Templates. And let's click on Organizer to bring up the Organizer Dialog Box. The first thing to know is that there are various things that I can manage with the Organizer. And I can choose between them using these tabs running across the top. So let's jump back to Views because that's the one we're going to deal with. And what we basically have a two lists, so a left hand list and a right hand list. And by default, the left hand list shows you the views.

So in this case, because I've got views selected, I can see all of the views that are currently available within the Global Templates. And the Global Template is really sort of a template for your installation of Project. It's a general repository of each of those types of object. Now the right hand list at the moment lists the views that are in the wedding project. So version 16, of the wedding project. Now below each of those lists, I can choose what I want to see a list of. So for instance, on the left, where I'm currently looking at what's in the global templates, if I click on that drop down, you can see that apart from having the wedding project open, I've also got the Bathroom Refit exercise eight version as well. And that has different views available to it.

So the views that are available to the wedding project may not necessarily be available to other projects that I have. If I jump back to wedding version 16, you can see that one of the views I have available to me is DA Gantt Chart. And of course, that's the one we applied at the start. So what I can do essentially is go over to the right hand column, and change what I'm looking at in the bottom. So I'm going to change this to the exercise eight of the bathroom refit. And I can essentially copy a view from the left hand side to the right hand side. So from wedding version 16 into exercise eight. So let me copy DA Gantt Chart across just by clicking that Copy button in the middle. And now you can see there it is available to our exercise eight project. So let me close this down. And we're going to go back to the wedding project. And we have DA Gantt Chart currently applied because we did that previously.

And if I switch to the exercise, so I'm going to use the switch windows option and go to exercise eight. If I click on Other Views in Task views, and down to More Views, you'll see that DA Gantt Chart is now there so I can very easily apply that. And if I hover over the Gantt Chart button, I can see now that DA Gantt Chart has also been applied to exercise eight. Now what I did there was to copy the DA Gantt Chart custom view from one project to another project. What I'm going to do now is switch back to the regular Gantt Chart. And then I'm going to go back to the Organizer. So File, Organizer, And I'm going to delete the DA Gantt Chart View from exercise eight. So exercise eight is currently showing in the right hand side of the screen. I'm going to click DA Gantt Chart and I'm going to use the delete button in the middle to delete that out.

Now let me close this and go back to exercise eight of the Bathroom Refit project Once again, if I got two other views and more views. Now this is a bit curious, you can still see DA Gantt Chart there. Now because we've deleted it, you might expect that to be gone from this list. And the reason it isn't, is because not only do I see custom views that are in the project, but I also see custom views that are in the global template. So strictly speaking, I don't really need to copy something like DA Gantt Chart into every individual project, I can access it from the global templates.

But supposing I wanted to pass this project file onto somebody else to use, somebody who wasn't using my global template, or maybe somebody who's using a different installation of Project, the way that I could pass to them a custom view or custom report is to include it in the actual project file that I'm handing over to them. Which is where that process that we've just done would come into play. So it's a really important point about managing and moving custom entities in Project 2019.

Now, if I really did want to get rid of the DA Gantt chart altogether, let me go back into the Organizer again, and let me now look at the Global Templates. So I'm looking here on the left hand side Global Templates. And what I could do is delete it out of the global template instead. So I could select DA Gantt Chart, and click on Delete. And let's go back and go up to Other Views and down to More Views. And you'll see that this time, it's now missing from that list. So that's it on Custom Views. Please join me in the next section.

## Section 19 – Saving Projects

### Video: Exporting to Other Formats

**Deborah:** Hello again, and welcome back to our course on Project 2019. We've already looked at opening, saving, and closing projects throughout the course. But what I'm going to look at in this section is a couple of additional features related to exporting projects. Now I've got the wedding project here and is version 16.

Now if I want to at any time, I can click on the Save button, and you can see I have the Save button on the Quick Access Toolbar. And that will save any changes I've made since the last save under the same project name, so SSI wedding 16. And as we know, because this works the same across all Microsoft applications, if we wanted to say save this project as a different version, or give it a different name, you can do that by going into the backstage area. So File, and you have a Save As option just here. You can then go through and select a location in which to save your project files.

So again, I have various different options listed and yours will probably be different to mine. I could choose to save into OneDrive, and I've got two there one for business and one for personal. I could save into SharePoint, I could save into this PC. So if I wanted to save it to my hard drive, this would be a good option. And Browse at the bottom will also take me directly into my local drives where I can browse for an appropriate folder to save it into. Now most of the time when you're saving a project file, and you can see the file extension down here it says save as type .mpp. And if I click that drop down, you'll see all of those different file types available. But MPP is the default and MPP is the one that you're going to use the majority of the time.

Now, in order to work on a Microsoft Project File, you do need a copy of Microsoft Project on your PC. If on the other hand, what you want to do is to distribute the information in the file with a reasonable level of detail. But in a form that other people without access to project can look at, but they can't edit it, you may want to export it to a PDF file. Now it's very simple to do. And I'm just going to select a quick save location. So I'm just going to put this on my desktop. And I'm just going to change the Save as type in the drop down to PDF. And click on Save. And when I click on Save, I'm given some document export options. So I can choose to publish all pages of my project file. Or I can make selections between two dates. So I'm going to stick with all. And I can also choose if I want to include any non-printing information.

So things like the document properties, or any markup that we have. So I'm going to leave all the default options. And I'm going to click on OK. And what that will do is it will export my project file to a PDF file. So once I've done that, if I now go to my desktop, which is where I saved this, you can see there I have SSI wedding 16 dot PDF. And if I double click to open, there is my project plan in the form of a PDF file. So I'm now free to share that with other people, email it, send it, and nobody can edit it. Now I'm going to close out of there and just show you one more option when it comes to exporting. And that is exporting to an Excel Workbook.

So again, if we jump back into File, and go down to Save As again, I'm going to jump into browse, and I'm going to select that desktop location again. And this time, I'm going to save it as an Excel Workbook. And click Save. And you'll see it brings up the export wizard. Now the export wizard will basically guide you through the process of exporting your project file out into Excel. And I'm not going to run through every single stage of this wizard you can go through it if that's something that you need to do. But just note here, it says this wizard automatically maps fields in project to the appropriate export format and then allows you to verify or edit the results. So you can go through and do that and I'll just click on Next. And the next step is to select the data. Now I don't have data currently in a project Excel template. So I would use selected data and then work my way through the rest of the steps of that export wizard.

Now amongst the other Save As options that we have, you can save as tab delimited text files, you can save as a CSV comma delimited. You can save as an XML format, and lots of other different formats in here. And I'm not going to demonstrate any of these on this course. But if you're familiar with those formats, I do suggest you give them a try. So that's the end on our review of the other export options that you have within Project 2019. That's the end of this section. Please join me in the next one.

## Section 20 - Security

### Video: Project Security

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to take a look at a couple of aspects of security in Microsoft Project. And the first of them is to see how to password protect an MPP file.

Now in order to demonstrate this, I'm going to save a new version of the wedding project. So we're currently on wedding version 16. And I'm going to save this as wedding version 17. And what I'm going to do is I'm going to jump into the backstage area, and click on Save As I'm going to browse. And for argument's sake, again, I'm just going to select my desktop. And I'm going to save this as version 17. So I'm just going to make a minor amendment to that file name. So before we hit the Save button, I want to do one small thing first. I'm going to go to this tools drop down at the bottom of the dialog box, click it and select General Options. And this is where you get the Save Options dialog box.

Now, I want you to ignore that first checkbox that says always create backup. And then you can put either no password, one password or two passwords on the file. At the moment, it has no passwords, and it has no password protection. So anybody can open the project and anybody can change it. Now, if I put a protection password on, then somebody would need to know that password in order to be able to open the file. And if I put a right reservation password on, then what that means is that in order to make changes to the project, somebody would need to know the right reservation password. Now I'm going to put both passwords on in a moment. So I'm going to put a password on both of these, and I'm going to make them the same. You can make them different if you want to.

So I'm going to say PA55wd, which is basically a corruption of the word password. So again, PA55wd. And click on OK. And it's asking me to confirm so PA55wd. And then again, the right reservation password, so PA55wd. And click on OK. And now I'm going to click on Save. So I'm going to reopen that file again, by going back to File, down to Open, I'm going to go to browse and pick up that file from my desktop. And there it is at the top. So if I double click, and you'll see it says that this file is protected, and it requires a password in order for me to be able to open it. So let's type in that password. And then it asks me for the second password. And there we go, my file is open.

Now I'm going to go back into Save As again. So let's go to File, down to Save As, I'm going to browse to my Desktop again, and I'm going to save another version of this and do it slightly differently. So let's save it as 17A and click on Tools and General Options. And you can see it's carried over that password protection. So I could choose to remove that if I wanted to. So I'm actually going to remove the password. And this time select Read Only Recommended and click on OK. And save. Let's close that down and reopen it again. So File, Open, I'm going to browse to my location. And I'm going to select the top one there 17A. And you'll see I get prompted. It

says, “Wedding 17 A's should be opened as read only unless changes to it must be saved. Do you want to open the file as read only”? So if I click Yes, the file is opened but it is read only and you can see that indicated at the top in the title. So that means if I make any changes to read only file, I'll need to save it as a different version in order to continue.

Now the second aspect of project security that I want to briefly talk to you about is the fact that it's possible for somebody to damage your computer system by running program code or macro code from a Microsoft Project File. So if you receive a project file from somebody and open it in project and it has some macro code in it, you need to be careful about whether you want to actually allow that code to run or not. Now, we don't go too much into macro code in this course. But I do want to show you how to adjust your macro settings. So if we go into File, into that Backstage View, and go down to options, you'll see the last item we have in this list on the left is Trust Center. And we want to jump into Trust Center settings. And this is where you can control your macro settings. And the default setting is the one that we currently have highlighted; Disable all macros with notification.

So basically, that says, if you open a project file, and it has macros in it, what Project will say is I'm not going to run those macros, but I will tell you that there are macros. So it will say something like there are macros in this project, do you want me to allow them to run? Now, if the project comes from somebody you trust and you know, there's macro code in it, and you need that macro code to do something, then you'll probably say Yes, I'm fine with that. Whereas if that file comes from maybe an untrusted source or somebody you don't know, you might want to hold off running those macros.

So checking what your macro settings are is something really important. And as I said the default and the recommended one is the second one there, but you can choose whichever one you feel suits you best. That's it for this section. I will see you in the next one.



## Section 21 - Templates

### Video: Saving Projects as Templates

**Deborah:** Hello again, and welcome back to our course on Project 2019. In this section, we're going to take a look at Templates. Now, you've already seen these thumbnails many times before. And I'm just on the new screen here. And I can choose from one of these available templates and use that as a starting point for a project. I spoke to you earlier on in the course about how you can search for online templates. And I do suggest that you experiment with some of these templates.

Now, if I were to choose one of these, and let's say we're going to choose the residential construction, I can click on it to select it. And it gives me a little bit of a description. So I can decide if this is actually the template that I want to use. So I can see here it says, plan a single family house construction project, from design to landscaping with this template. So if I decide that I want to use that one, which I do, I then just click on that big Create button. And this gives me a really good starting point for a project plan for a residential construction. Now one aspect of this template and in fact, it is a quite a common aspect of these general templates is the way in which the timeline is used effectively to show phases in the project. And I think that the way that the timeline has been used in this particular project to give you a really good overview is a really effective way to use the timeline.

And that in turn is a good explanation of the value of looking at the templates that are available. And seeing the ways in which various people have set their projects up and used features like the timeline, it gives you some really good ideas that you can utilize in your own projects. Now what I'd like to look at in this section is how you can use one of your own projects as a template. And in the example, I'm going to use the wedding plan. So let's suppose I've got the wedding plan to a point where I'm really happy with it. And although I appreciate that every wedding is different, there is enough content in that wedding plan, which is common to many weddings, I think that will be a really good starting point for planning somebody else's wedding. Now what I'm going to do then is save the wedding plan as it is now as a template. And I'm going to show you how you can then make that template available for use in future projects.

So here I have version 18 of the wedding plan. I've removed the passwords that I put on in version 17, and we're going to save this version as a template for future weddings. Now before we do that, it's very important to establish the folder in which our personal templates are going to be stored. So first of all, what we're going to do is we're going to go into Options. And we're going to go to the Save page of the Options. And we're going to look at one of the options that I haven't talked about before and that is Save Templates. So this section down here, you will almost certainly particularly if you have a new installation of Project 2019 have nothing in this box. And in order to be able to use personal templates, effectively, you need to specify a folder.

Now there is a standard folder that you can specify here. And I'm going to point that out to you right at the end of this section. But for the moment and for the purpose of this demonstration, what I'm going to do is use the course Files folder as my personal Templates folder. So I'm going to click on Browse. And there is now my folder location where I'm going to store my templates. And I'm going to click on OK. So having established my personal Templates folder, what I'm going to do now is I'm going to go up to File, I'm going to go down to Save As, I'm going to click Browse. And if I change my Save as type down here, from MPP to project template, which will give it an MPT file extension, you'll see that it's automatically reverted to my Project 2019 course Files folder at the top there. So it knows that that's the default location to save template files into. Now what am I going to call this template?

Well, I'm going to change the name very slightly. And I'm going to call it My Wedding Planner. And I'm going to click Save. And what I get is the Save As template dialog box. Now although I'm saving the current version of that plan as a template, there are certain things in it that Project suggests I might want to remove. So for instance, do I want to keep the values of all Baselines? Well, this is going to be used for planning future projects, and therefore the Baseline for the current wedding plan isn't really going to be of much use. So I think I'm going to remove that from the template. And I'm also going to remove the second item their actual values. So no actuals related to the current project would apply to the future project.

The next two items, Resource Rates and Fixed Costs, I'm going to leave those in the templates. Now, obviously, I'm going to need to check them whenever I use this template in the future to make sure they haven't changed but they are a good guide. So I suggest to keep those at the moments. The last option relates to publishing to the project web app, which is, again outside the scope of this course. So I'm going to ignore that for the moment. So let's click on Save. And now as you can see from the Header, we now have a template file. It says My Wedding Planner dot MPT. Now let me close this.

So let's pretend that I'm now at some point in the future. And I want to create a new wedding plan. So I'm going to go to new which I'm in now. And once you've established a personal template folder, on the new page, you will see this pair of options; Featured and Personal. So obviously, we're clicked on Featured at the moment, and it's showing us all the feature templates. But if I click on Personal, that's going to show me all of the templates that I've saved into my Templates folder. And you can see there we have My Wedding Planner. So I'm going to click on it to select it and click on Create.

So now I have a new project based on my template, but with no Baseline and no actuals but resource rates, etc. inherited from the version 18 of the wedding plan as it was. So, I can now start working on a new wedding. So that's it on Saving Templates. That's the end of this section. Please join me in the next one.

## Section 22 - Calendars

### Video: Calendars - Part 1

**Deborah:** Hello again and welcome back to our course on Project 2019. In this section, we're going to start to look at the very important topic of Calendars. Now generally speaking, I tend to cover Calendars usually earlier on in courses on Microsoft Project. But an understanding of Calendars and how to use them, I think benefits from knowing quite a bit already about how Scheduling works, how Resource Assignments work, and so on.

So on this occasion, I've left them till a little bit later on in the course. And hopefully this will give you a better ability to understand just how important Calendars are. Having said that, when you're using Microsoft Project, making sure that your Calendar or Calendars are set up is actually one of the things that you should do very early on in the work on a project. And you'll see this as I explain the use of Calendars from now on. And one of the things that you may want to do after going through at least part of this section, is to take a look at the calendars for the wedding project and for the bathroom refit. But we're going to start a completely new project. So a Blank Project for now. And we're going to use a very different calendar for this particular project.

Now the project is going to be a project to do some work on a road in a town. So there's some resurfacing work to do, we've got to drill up the road, we've got to prepare it for surfacing, and then we've got to surface the road. And then we've got to put everything back together again. Now as a building job, and one which should be done as quickly as possible, so as to keep the disruption to residents as short as possible. We're going to be operating from relatively early in the morning until relatively late in the evening. So this particular project is definitely not an office hours' project. So I've created a new project, and I've called it Road Fix 01. And on the Project tab, I'm going to click on Change Working Time. And this brings up a dialog the Change Working Time dialog, that explains the current working time or if you like the current calendar for this project.

Now the settings you see here are the default ones in Project 2019. Now let me explain this dialog because there's quite a lot in it. In the middle, you basically have a month by month calendar. And you can use the little arrows at the top to step through those months or scroll down whichever you prefer. And on any particular month, the gray background means it's a non-working day. So that would make sense Saturday, and Sunday columns are currently in gray. And whatever you have in black, there is the current day's date. So today is in fact March the 19th 2019. Working days show with a white background, so Monday to Friday, as you would expect are showing in white.

So if I select today so the 19<sup>th</sup>, the working times for that particular day that I've selected a shown just here on the right. So you can see it says, "Working times for March 19 2019 8am to 12pm and 1pm to five". So I'm assuming that we're allowing an hour in there for lunch. So that's

essentially an eight hour working day. And the figures here are based on the default workweek on the calendar standard. And you can see the calendar we've got selected in the top there; Standard Project Calendar. Now also over on the left on the legend, you can have exception days, and I'll talk about those a bit later on. You can also have non-default work week. So you can set up a particular week as being say different from working hours to other weeks. And at the bottom you have a couple of tabs. On one tab you can indicate any exceptions. So exceptions might include things like Public Holidays. And you can also define what a work week is in this calendar.

Now we're currently looking at a calendar called the Standard Calendar. And for this project, this is the Project Calendar. Now you do actually have three calendars by default, and if I click the drop down up there, you can see the other two. So we have a calendar for 24 hours, and a calendar for night shift alongside our Standard Project Calendar. So if I wanted a 24 hour calendar for this project, I could select it. And you can see that that involves working seven days a week, and it would be fairly straightforward to set that up as a calendar for this project. If I wanted a Night Shift calendar, I could do the same and the work hours here are 12am to 3am, 4am to 8am, 11pm to 12am. So those are your three default calendars.

Now we come to a very important point. Let's suppose that generally speaking, your projects do run during office hours. So the Standard Calendar is the one that's closest to your hours of work. And let's suppose that 8am to 12pm, and 1pm to 5pm, is fine for you in terms of working hours. If that's all true, then clearly, you can use this Standard Calendar as your basic Project Calendar for many or all of your projects. If on the other hand, the Standard Calendar is never right for you, and you say you work from 9am to 1pm, and then two until six, or maybe you do a seven hour working day or something like that, you may want to change the Standard Calendar to fit in with your own standard hours of work.

But if that's not the case, if in fact on each of your projects, the hours of work tend to be different, then I strongly suggest that you don't change either the Standard, the 24 hour, or the Night Shift calendars, you just leave them as they are. And that for each project, you create a new calendar, or some new calendars to deal with that specific project. So what we're going to do on this occasion is we're going to create a new calendar for Road Fix project, because the hours of work are going to be much longer than the standard. And also because it's a rather unusual project from the point of view of hours of work. So I'm going to choose the option up here on the right, create New Calendar.

Now when I create a new base calendar, I can give it a name of my choosing. And I'm going to call this My Building Calendar. And I can either create it as a new base calendar, which means I can just enter everything from scratch, or I can make a copy of an existing one. Or what I'm going to do is I'm going to make a copy of the Standard Calendar because although I'm going to change the hours quite a bit, some of the features of the Standard Calendar are fine. So such as the fact that we're not going to be working on weekends. So I'm going to click on OK. And you can see at the top now I'm working in my Building Calendar.

So the first thing that I need to do is to change the standard workweek. And you see there we have a tab called Workweeks. And if I click on the Details button, it will give me the details of what the standard working week is. So notice the radio button here, “Use project default times for these days, Set days to non-working time, and Set days to these specific working times”. So you can see my three radio buttons there. So the first one use project default times for these days. So I can select individual days of the week. And you can see that the figures for Monday 8am to 12, and then one to five, if I click on Sunday, there's nothing in there because it's a non-working day.

I can also select this option where I going and set days to non-working time. And also I can set days to the specific working time. So a few different options for me in there. Now what I'm going to do on this occasion is I'm going to change the working hours for all of the working days. So Monday to Friday, and I just held down my shift key in order to highlight all of those. And each of these days currently has the default working time from 8am to 12pm. And then again from 1pm to 5pm. And I'm going to change these working times.

So I'm going to select a different radio button, I'm going to select the bottom one; “Set days to these specific working times”. And you can see they now become active and editable fields. So I'm going to set them to the longer working times of 7am to 1pm. And then down here we're going to have 2pm to 8pm. So that's a 12 hour working day. So having done that, if I click on OK. And you can now see that my working times have changed 7am to 1pm, 2pm to 8pm. And that's changed for all of those days, those weekdays. So if I click on the 18th, you can see that's the same. If I was to click on the 17th that's telling me it's a non-working day. So the standard working week now on this calendar is five days of 12 hours. Now in a moment, I'm going to look at some exceptions. But before I do, I've got another very important point to point out. And that is if I click on options down here at the bottom, it takes me into Project Options to the Schedule page. And there is a section that we looked at briefly earlier on in the course, called Calendar Options for this project. And it's the first one just here.

Now, one of the things in Project 2019 that you need to be wary of is that although we're now setting up quite an unusual calendar, and this calendar is going to be used in our project together with some other specific variations that we're going to look at in the next section, setting up the Calendar alone is not enough to make sure that all of our calculations in Project 2019 for this project are going to work correctly. Because there is a set of options in Project, the ones that we're looking at now, which are used for a number of calculations. And it's very important that you have those options set to tie in with the Project Calendar. So for instance, one of them here, hours per day, is set at eight. And if we leave that set at eight, we're going to find some inconsistencies in the calculations that Project does.

Now it's important to recognize that although we've got a Project Calendar set up as a Standard 12 hour day, that doesn't necessarily mean that everybody working on the project will be working on the basis of a 12 hour day. And what we need to tell Microsoft Project is when doing your calculations in Reports, in Scheduling, and so on, what number of hours per day should be the standard number that you base your calculations on. And we need to increase that from 8 up to 12, because we're doing 12 hour days. Now note that this is only for the project Road Fix 01.

This is not going to affect the hours per day for any other project. So I need to be clear that the hours per day on this project, the standard hours is 12. And therefore the standard hours per week would be 60. So I'm going to increase that up to 60. Now I'll leave the days per month as 20. But I'll also change the Default Start Time. So if any tasks where we don't specify a start time, the Default Start Time is going to be 7am. And I'll also change the Default End Time. And again, if we don't specify an end time for a task, it defaults to 8pm. I'll leave the starting day for the week, a Sunday and the fiscal year starting in January.

Now it's very important that those are set to the values that you want to apply throughout the project. Even though as I say individual tasks, and we'll see individual resources may not all correspond to those figures and click on OK. Now having set up our Standard Working week in the Building Calendar. Let's now look at exceptions. It's very important not only that you get the working week set up and the working hours set up correctly, that you also scheduling any relevant exceptions before you start planning a project. Now an exception that I want to set up here is Easter Monday. This project is going to run either side of the Easter holiday this year. So I'm going to go to March, which I'm already on. That's a bit of luck. And Easter Monday is on March the 25th. So I'm going to give it a name. So Easter Monday and the start time and finish time of both March the 25th. And I also need to make sure that that's indicated as a non-working day.

So if I click on Details, you can see that it's already selected Non-working at the top there. And also it's worth noting that if this was half a day, so if we only wanted half a nonworking day, we could select the working times option and put in the times to and from in there. But I'm happy to keep that as it is and click on OK. Now by default when you set up an exception, it's actually set up as a Recurring Exception. But in doing that what Project 2019 does is to set it up to recur once. So you have here recurrence of daily and if we jump back into details again, you can see their recurrence pattern daily and it starts on Monday, March the 25th. And it ends after one recurrence, so you only get Easter Monday once. If on the other hand, I wanted to set up Christmas. So let me go to December and click on the 25th and let's set that up as well. So in here, I'm going to put Christmas Day. And we're going to click on Details. And again, it's a nonworking day, which is fine. But I could say that I want it to recur yearly, on December the 25th.

But I could say that I want it to occur more times than just once. So let's do this for quite a way into the future. So I'm going to say after 10 occurrences. So it's going to recur every year, and they will end in 2028. So what I normally do at this point is set up any other exceptions that I have. And when I finished with my exceptions, I can click on OK. And now let me go into the project information option and change my calendar from Standard to My Building Calendar and click on OK. So I'm now using that new Building Calendar as part of my project. That's it for this section. Please join me in the next one.



## Video: Calendars - Part 2

**Deborah:** Hello again, and welcome back to our course on Project 2019. Now I've added the basic tasks that are needed for the road fix project. We're, of course, using the Building Calendar with a 12 hour working day. And I've scheduled the fix to take two weeks. So we start out with marking out the site, which you can see here, task ID two, and then we move on to preparing the equipment, setting up health and safety, so on and so forth. And then we have a task here in the middle Drill and Clear. And then finally, we have Surface Work, Edges and Paving, and Finish and Clear Site. So the whole lot should take roughly two weeks.

Now I'm sure if you're a road builder or road layer, then you'll know that there's a lot more involved than that. But I really just want to demonstrate the use of Calendars here. So I've tried to keep this reasonably simple. Now the first thing to point out is that when I added the resources, the work resources to this project, and let's just jump across to our Resource Sheets, each of them by default, gets the Building Calendar. And for each of them, not only could I choose one of the other calendars if it was more appropriate to them, so I could click the drop down and select a different calendar. But I could actually create individual calendars for them.

Now, having said that, I don't actually need to create individual personal calendars for each of the work resources. Because as you'll see, I can set up exceptions for each work resource such as their own holiday, vacation time, perhaps their own days off. And I can set those up within the existing structure and framework for calendars. And I'll demonstrate that to you in a while. Now let's jump back to the Gantt Chart. Now one thing I haven't mentioned before is that if I take an individual task, like say, this middle one here Drill and Clear, let's just open that up, there's an option in here on the Advanced tab to have a Task Calendar.

So not only can you have a Project Calendar, you can also have a Resource Calendar, as I pointed out just now, and you can also have Task Calendars. A task can have its own calendar. And the first example I want to show you here is an example of where a task has its own calendar. And what I'm going to do here for the sake of relative simplicity, is to say that the noisiest part of this particular job is the drilling and the clearing operation. And given that the Building Calendar goes from seven in the morning, till eight in the evening, in order to get the permission to do this work, we've been told that we have to restrict our hours of work on this particular task to just eight hours a day instead of 12.

Now, that will almost certainly mean in terms of the project, of course, that elapsed time on the project will be longer. But let's first look at how we can apply a different calendar to that task. Now at present, that task is covering a duration of four working days. And we have two people working on it at 12 hours a day each. So that's a 96 hour task. And we're going to need to restrict it to eight hours a day. So the resources themselves, Jenny and Max are available for the full 12 hour day. So the problem is not with them, the problem is with the task. So it's important to apply the restriction on hours to the task. Now you might say well, why not just use the Standard Calendar that's eight hours a day. And that would approximately work.



The trouble is that the lunchtime break in the Standard Calendar is not the same as the lunchtime break in our Building Calendar. And therefore, although we would be showing eight hours a day of work in the Standard Calendar, the resources are scheduled to take their break from one o'clock until two o'clock. And, one o'clock until two o'clock is working time in the Standard Calendar. So what I'm going to do is to create what I'm going to call a Quiet Time calendar, which is just an eight hour day, but based on the Building Calendar. So I'm going to go up to Change Working Time. And I'm going to say create new calendar. And I'm going to call it Building Quiet Work. And I'm going to make a copy of the Building Calendar and click on OK. And then what I'm going to do for this new calendar is to go into Working Weeks, Look at the details, And I'm going to select Monday to Friday, and I'm going to change these times So it's going to set it to 9am to 1pm and 2pm to 6pm. And those apply from Monday through Friday.

So let's click on OK. And Ok, again. I'm now going to open up the Drill and Clear task. And I'm going to jump into Advanced, and I'm going to select the calendar as Building Quiet Work. Now watch carefully what happens to task ID seven when I do this. Of course, it gets extended. And instead of being a four day task, it's now a six day task. And of course, in turn that has pushed the end of my project out to the Monday the following week. So in the exercise that I'm going to set you in the next section, exercise nine, this is going to be our attempt to fix this particular problem. Before we do that though, we've got one other little bit of bad news, and that is that Max is going to need to take Wednesday off next week. So let's set Max up with a day off next Wednesday. I'm going to go into Change Working Time.

I'm going to go up to the top here, and I'm going to select the calendar for max. So these are calendars that I've also set up which you should know how to do by now. And I'm going to set an exception for Max because he can't work next Wednesday. So let's say that he's going to the hospital. And the date next Wednesday, so let's say that's Wednesday next week is the 27th. And it finishes on the 27th as well. And if I wanted to, I could check the details. And I can see that's now set to Nonworking. The recurrence pattern is daily, but there's only one occurrence so it's only going to occur once. And I'm going to click on Ok and ok again, and that's added that in. Now we've got a bit of a problem here. Everything is running into that third week. But fixing that problem is what exercise nine is all about. So please join me for that.

## Video: Exercise 09

**Deborah:** Hello again, and welcome back to our course on Project 2019. In the previous section I mentioned exercise nine a couple of times. And this is what I'm going to set you in this section.

Now in the previous section, we had a problem. We'd set up the road fix project but because of the need to restrict hours of work on the noisiest part of the job, which was task ID seven here, the drill and clear task two hours, just eight hours a day from nine to one in the morning, and again, from two to six in the afternoon. Because of that the project has run over into a third week, which we didn't really want to happen.

In addition, one of the key resources on the project Max has had to go to hospital next Wednesday, and I'm talking about Wednesday in the second week. And allowing for that and the restriction on time for work, we're running two and a bit days behind where we'd like to be. Now we're going to resolve that on the basis of the very good news that we've been given permission to work over the weekend. So this is the weekend which is spanned by that drill and clear task, we can work those same restricted hours nine to one, and again, from two till six on both Saturday and Sunday. So what you need to do is to change the working time so that working on that Saturday and Sunday is allowed.

Now beware because in effect, you have a few like two calendars involved there. The Project Calendar is the Building Calendar. And that is the calendar, of course that Jenny and Max are working to. But there is also a Task Calendar. And that is the building quiet time calendar. And even though that was based on the Building Calendar, that's the one that dictates when work on that task is allowed to happen so bear that in mind when you're going through this exercise. Just remember that what you're looking to achieve is a situation where work is being done over that weekend.

Now I'm starting you off with the file exercise 09 A and you'll find that in the exercise folder, that's the one you're going to start with. And my answer is an exercise 09 B. And I'm going to talk about my answer in just a moment. But just before I do one other thing, if you find it more convenient to use dates which are nearer to the date when you're working through this course, then that's totally fine. When you open 09 A, you can change the start date for the project. So just change it to whatever the preceding Monday from where you are now is. And then the idea is you're trying to make this project fit into a two week period. So start on a Monday, and finish on the Friday at the latest.

Now of course, if you do make that change to the start date, then that's going to affect any other dates you're setting up within the project. So don't forget about that as well. So anyway, that's the job to get that weekend working going. Now if you do get that weekend working sorted, you should find that Max's day to go to the hospital is actually not going to cause any problems at all. Now let's take a look at one aspect of my answer. Now here is my answer in 09 B. As you can see, it starts on a Monday, and it finishes on a Friday. But the point I want to make to you a very important point is this. Once we've got that weekend working going here, there's Saturday and

Sunday. And you've seen both Max and Jenny are doing eight hours on Saturday and eight hours on Sunday.

Bear in mind that on Monday, they'll again come in on that task, and they'll do eight hours work on that. But also bear in mind that each of them also has other time on Monday and remember that they are still working on a 12 hour calendar. So those little tips should help you pull the whole schedule back and into our original timescales. So a couple of very important points there about a situation where a Task Calendar is if you like a subset of a Project Calendar. And, how even though people may be restricted on the hours they can work on one task, they may be able to work on something else. So that's it. That's exercise 09, that's the end of this section. Please join me in the next one.

## Section 23 – Course Close

### Video: Conclusion and Close

**Deborah:** Hello again, and welcome to this final section in our course on Project 2019. In this section, I want to briefly talk about a few very important topics that we haven't covered in this course. And the first of those topics is the facility within Project 2019 to combine projects into a master project, and that is often referred to as Project Consolidation.

And this can be particularly valuable when you're either working with other project managers on projects that are perhaps part of a program. Or in particular, when you're working with other project managers, or indeed on other projects that you look after yourself. The way you're required to share a pool of resources; so the availability of resources, the workload, over allocation issues, and so on. Those are shared between many projects, and not just one as they have been in this course.

Another important area in Project 2019 is the area of Customization. I showed you early on in the course how to customize the content of the Quick Access Toolbar. And I briefly talked about customizing the ribbon. But you can customize many other things, some of which I did mention during the course, such as creating your own Custom Views, Custom Tables, Custom Fields, and so on. And this is a way that you can really develop the facilities within Project to suit your very specific requirements.

Also in the course, I briefly referred to the facility to export project data to Excel to do further analysis and reporting. That's another very valuable and powerful area in the use of Project 2019. And you also have facilities in Project 2019 for visual reporting using either Excel or Visio. So there's plenty more to find out about even in the areas of the course that we covered quite extensively. So I hope that you not only enjoy using Project now, but you learn more and more about it and become more and more proficient and able to save yourself a lot of time when you're managing your projects using this very powerful tool from Microsoft.

But for now, that's it from me. I hope you enjoyed this course as much as I've enjoyed preparing and delivering it to you. And I hope to see you again online sometime soon. My name is Deborah, bye for now.