

SharePoint Designer Overview

In this screencast, I am going to be introducing you to the Microsoft Office SharePoint Designer 2007. SharePoint Designer can be used to customize and make some really robust solutions on the current version of SharePoint, which is SharePoint 2007, regardless if you have WSS or MOSS you can use SharePoint Designer for both of them. You can also use SharePoint Designer for previous version of SharePoint, which is SharePoint 2003.

So, first of all, how do you obtain SharePoint Designer. Well that is simple enough, SharePoint Designer 2007 has become free, it used to be a paid software, but right now it is completely free. All you have to do is go to www.microsoft.com/spd, SharePoint Designer, and that will bring you to the page that you are looking at before. And in this page, all you have to do is click on 'Download for free' and it will take you to the place where you can download this all for no charge.

So once you have SharePoint Designer, what do you do? What is the next step? And that is what I am going to be talking about in this screencast. So first let me show you SharePoint. Now, this is a typical Windows SharePoint Services site. This is called Sales. If I wanted to modify this site, if I wanted to apply a different look and field to the site, if I wanted to backup this site, if I wanted to do things like fetch data from a sequel database or fetch data from different lists and libraries and combine the data together to give me a unified view of data all in this site, I would use SharePoint Designer for those purposes and a whole lot more.

So to start using SharePoint Designer, you would go to Start → All Programs, look for Microsoft Office and SharePoint Designer should be present there if you have installed on your client machine. Now, once SharePoint Designer opens up, the developers look at it as a kind of like a visual studio environment, it is not true this is not a replacement for visual studio, it has its own place to build powerful solutions, but in visual studio you can make more enterprise type solutions. Now, information workers look at the system as kind of a confusing or more complex type of system. That is not true either. With proper training and proper understanding of the software, you can use this, information workers and power users can use this system to build some really powerful solutions.

Now, my advice to people who are looking at this for the first time, do not get distracted with all the things that are opened here, the Toolbox, Apply Styles and all that stuff opened here, if you don't like these things, let us go ahead and close them, you can always bring any of these things back by going to Task Panes and just picking the Task Pane that you want to show, very easy to do.

Now, for this demo, I want to go ahead and close these, leave these closed. So, the first thing that you do when you go to SharePoint designer is go to File → Open Site and bring up one of the sites. So, in our case, I am going to take my Sales site, copy it to my clipboard, come to SharePoint Designer and paste it in here. Now, remember to take off the default.aspx at the end. Once I have this, until Sales, the name of the site, click on Open and it opens the site up in the tree view. So, this view right now shows me all the different internals of my site, things that are visible to a user from the web browser and things that are not visible to a user from a web browser.

Let us look at these folders and these lists one by one.

1. The Catalogs folder, if you expand this, shows first of all the fpdatasources folder and that is a place where all the data connections that a site makes are stored here.
2. The Master Page Gallery stores the master page, which provides the chrome of the site in this folder. Alright they are in this library.
3. Now the Private folder, it is a protected folder that can be used to store information that you do not want to be accessible from a web browser. So, for example, if you create some kind of a form that users can use to send data back to you on your site, you can store that data into this Private folder and that would not be visible to users.
4. The Images folder serves as a location to store any of the images that could be served up on the SharePoint site. This is not to be confused with the Picture Library, which you can also create of course in any SharePoint site. A Picture Library would be created for humanly readable and viewable pictures, you can view slide shows, you can view thumbnails, and all the different kind of stuff that you

could do with storing those pictures in the Picture Library.

5. Then there is a folder for Lists and if you expand this folder, you will see all the predefined lists and also the lists that you have created on your site. So, the Announcements, Calendars, Links, Tasks, all these things come with when you make a new Team Site. Now some of the lists that I have created are Customers, Orders, Order Details, these are custom lists that I have created, but all of them show up right here in this view.
6. The next folder to note is the M folder. M stands for 'mobile' in this case and the default.aspx file within it serves as the mobile view of this SharePoint site, which you can also customize using SharePoint Designer if you wish to have a different view being served up for mobile devices.
7. And then there are a couple of Libraries being shown here. The Pages Library is something that I had created. The Shared Documents is the one that comes with every Team Site, so all the libraries and the forms within libraries, all show up here.
8. Also if you are using SharePoint Designer, you had created workflows, which you can make really powerful workflows using SharePoint Designer, if you had made a workflow for this site, they would show up right here in the Workflows folder. So, here you can see that I have one workflow that is labeled 'Offer Discount to Customer'.
9. And then lastly, the default.aspx page, which is the main default page for the site. Now let me go ahead and double click on it to open it up. When retrieving the data, retrieving the default.aspx page, what SharePoint Designer does, it goes out into the web server first, gets the cached page for the default.aspx page there, then it goes out to the database and gets all the content for the page, combines it all together and shows you a unified view of the page right here in SharePoint Designer. So here I can see my page being displayed in SharePoint Designer with all the different tags and zones and web parts, everything being present. If I wish to see it the way it would look like in the browser, I could turn the Visual Aids off,

double click on this. Now the Visual Aids have been turned off, it looks very much like it would in the browser. Let me turn it back on, turning it back on shows me the Placeholders and everything, which are not visible through the browser.

SharePoint Designer also can be used to create SharePoint content for this site, or underneath that site. So, for example, if I wanted to make a SubSite or if wanted to make a List or a Library or things as such, what I would do is go to File → New → SharePoint Content, this brings me to a place where it asks me what kind of content do you want to create. Let us look at the web site first. Web site tab has a SharePoint Templates option, and in that it shows me all different templates, which are available on this web server on this site to create a SubSite under that. Now, currently it is showing me that it can create a site, and it will create a site under the HR location. So, this means that I can create a SubSite, not under only this site, but I can point to a different site and have a SubSite created under there directly from here. This would require many clicks through the browser. You have to actually navigate to a site that you wish to create a SubSite under and then go to Create Site and make a site under there. This way, if you are making your site hierarchy, it is much easier to come to this location, point to the web site that you want to make a new SubSite under, click on new template that you want and click OK. You can also see that at the bottom, there are some templates that I had created myself, so all my custom templates also appear here.

Now let us look at the SharePoint Content tab. So, the first thing to note here is that in the Lists category, I can take any of the List templates that are of the box or the ones that I have created, I can use any of them, point to a list that I want, name it to whatever I want to name it, for example, I will say Sales Calendar, and then click OK to create that list, in instance of that list on the site.

Similarly for Document Libraries category, I can use any of the library types available for me, for example, Document Library, Slide Library, Form Library, Data Connection Library, just click on the one that I want, name it here and then click OK to create. Similarly, there is a separate option for Surveys, which is also a list but it gives you a separate category here to create Surveys. Workflow is also going to generated using this option.

Click on Workflow → Blank Workflow → click on OK. I will show you this in a few minutes.

And lastly, there is a SharePoint Publishing option. This you can use to create page layout for content management type pages. A page layout is always based on the content type, and content types you create using the browser. First make a Content Type, then you can make a Page Layout based on that content type and then you can make a page, which is based on the Page Layout. The process to create all that stuff is available as a separate screencast on our SharePoint-eLearning.com site.

Getting back to the workflow, let us click on Blank Workflow → click on OK. Now what that does is, it fetches information from the site and it shows all the different Lists and Libraries available on the site. You can pick any of the Lists and Libraries, name the workflow to whatever you want, decide how you want the workflow to start, and then once you click on Next, it shows you options to create steps for the workflow and within each step, you can define Conditions and then Subsequent actions for the workflow. And this Conditional Logic you can have 'If' and then 'Else If' branches and a whole lot more. There are a bunch of different screencasts that we have on our site for how to make some really powerful workflows using this functionality. Let us cancel out of here now.

We can also make individual pages on the site very easily using SharePoint Designer. So, I had made a Pages Library earlier before I started this demo and if I wanted to create a new page here, I will simply go to File → New → and HTML Page, ASPX page, CSS page and make that very easily. Let us click on ASPX, for example, here we go. So it starts making an ASPX page, if you look at the actual code, which here are the different options to look at Design view, the Split view, and the Code view for this page. In the Code view right now, it shows me that there is really nothing that it gives me to begin with, just the regular HTML, head and body tags and a form tag. I can go ahead and start building it from scratch right here using the visual aspect of SharePoint Designer, using the Toolbox, using the Data Sources, using Lists and Libraries, I can just drag and drop information here to make my page.

Now let us talk about master pages for a minute here. If you go to the default.aspx page, this is a master page right here, the quick launch bar and the top bar right here, the small sliver,

the blue line that you are seeing at the bottom here, and the blue on the side, all that stuff, the chrome of the page, the chrome of the site in this instance is the master page. That should not be configured using the default.aspx page directly. You should go to the master page, which is default.master to begin with and it tells you that right here, default.master is the one that is attached to this page. You should go to that page and then configure the master page there to apply your look and field, to apply different components to the page. Now it tells you here that it is under sales/_catalogs/masterpage/default.master, which is right here, masterpage/default.master. When I pull this up by double clicking on it, it shows me the Master Page in the view and it shows only the chrome and not the body. The body is being applied to it in this case from default.aspx, so any changes that I wish to do to the chrome of the page I would do it directly from here and it would take effect to all the different pages on the site, which are used in the default.master.

To modify a site, to change the look and field of the site, what you would generally do is apply different styles to the default.master. So, once you the apply different styles to default.master, it will change the look and field, the chrome of the site. And SharePoint Designer helps you do that as well, really simply. You go to Task Panes, go to, for example, Apply Styles, so here it gives you, first of all, all different style sheets, in this case, core.css that are being applied to this site. If I collapse this right here, it only shows that core.css being applied right now, but if you had some customized style sheets that you had attached to this master page, and attaching by the way just means that dragging it from the navigation folder list here directly onto the master page, it attaches the style sheet to the master page. And if I wanted to apply something to the master page, now let us say, if I will take a style from here and apply it directly to this site map path, here we go. So simply by selecting style, it has applied that style to that component on that page that I had clicked. And you can do a whole lot of stuff that is similar to that, for example, creating your own style sheets from scratch, taking in the style sheet and bringing them here into SharePoint Designer environment and then attaching it to the master page, or creating individual styles that would show up right here in this pane that you can then apply to any component or components of the page. Now, let me go and undo this change here by simply going and doing this undo.

Now, since we are talking about styling on the page, let me show you one other thing that is going to help make life easy when selecting components of the page to style things or to change formatting for. If I go to default.aspx page, you can see that I have List View Web Parts, I have Zones, I have all these different kinds of things that are displayed here, and there is at Tag Selector right here, which if I click on the first tag selector, it shows me that it has the List View Web Part highlighted. If I hover over the zone template, it has the whole zone highlighted. If I click on the table row, tr, now the whole table row that has all different zones are highlighted. If I click on this the whole table row has been highlighted, which I can apply formatting or anything else to it right now very easily.

Generally, the use of SharePoint Designer is limited to power users, designers, or site admins for a site. All these folks need and require a way to back up their site and to be able to restore their site if needed. Now to back up a site if you do not have SharePoint Designer, the only way to really do it is using the STSADM utility, which is available through the web server, but you need access to the actual physical web server and to run the utility, the command line utility, there to back things up. There are the third party tools that you can use to back up your site, but if you wanted to backup your site or restore your site using SharePoint Designer, you can simply go to Site → Administration → Backup Web site, and you can also Restore Web site where needed. There is a limitation currently with SharePoint Designer. It will not let you back up or restore a site greater than 24 megabytes, which I understand, of course, is quite small, but at least you have the functionality right now to back up a site with minimal content or at least to back up a site with some styling and then restore it later as a site template that could be used again and again.

Another thing that could be really helpful to site admins is to be able to run reports on the site. Now there are some site usage reports that come in a web browser for site admins. You can go to Site Settings to be able to see the reports, but SharePoint Designer takes it much much further. So you can go to Site → Reports and view all the different kinds of reports, which are available for the site. For example, Site Usage report, Monthly reports, which Browsers are being used, which Operating Systems are being used to get to this site; also you

can get a summary, so let us get a summary; all different broken hyperlinks on the site, all the different hyperlinks which are pointing to anywhere could be shown by clicking on this view; customize pages, if any pages on this site have been customized, also known as unghosted; different master pages which are being used; style sheets that are being used; all different links, everything is available right here. So, there are numerous types of reports like that that you can use SharePoint Designer to make and you do not have access to them using the web browser.

One last thing that I want to show with SharePoint Designer, something that you can do is one of the most powerful things that you can do with SharePoint Designer and that is called making Data Views. Here is the option to make Data Views. If I click on Data Views and say Manage Data Sources, in the Task Pane here, which is going to show up in a second, it shows me the Data Source Library. Now, Data Source Library shows me all different Lists and Libraries, first of all, that are on the site, it also shows me if I have any Database Connections or if I want to make a new Database Connection, I can do that pretty easily, connections to XML files, Server-side Scripts like RSS Feeds, Web Services, Connections to Business Data Catalogs, which is very powerful functionality within SharePoint, and then taking any of the sources together that I have configured, linking the sources together by creating a new Linked Source to provide a unified view of the data on any SharePoint page. Now, the possibilities here are really endless. You can take any of the List, Library, Sequel Data, Oracle Data, Data from Business Data Catalog, Data coming from RSS Feeds, any kind of information together and manipulate it, format it, to show it in any way that you want in a SharePoint page without doing any coding whatsoever. There are many screencasts like that that I have up on the site on SharePoint-eLearning.com.

To give you an example of how powerful Data Views can be, let me show you a demo that I have created earlier. This is also available in the subscriber part of my SharePoint-eLearning.com site. If I go to the Sales Site, click on Customer Order Management, which is where my employees use to manage customer orders for a fictional Corporation in this case. When I click on this, it shows me a view of all my customers. I can flip through all different customers, in this case, paginated by 10, I can have pagination, of course, increase or decrease the way I want, pick a customer, it takes me to a different page, shows me all

the different orders for that customer, now currently it is showing me the first Order Details in this view. If I pick a different order, for example 10462, it shows me the Order Details for that order. Now, this first line is being formatted with a red background because the quantity is very low for this order. What I can do is, or what my operators can do, is click on Offer Discount and this will start a workflow, which is also created using SharePoint Designer to offer a discount to this customer to motivate them to buy more quantities for this product or I can change the quantity right here. I can click on this and say 11, click on Save and here we go. It changed the quantity in my back end data source for this product. All the stuff the Data View that you have seen here, the workflow that could be kicked off using this functionality, everything has been designed using no code at all, and all of that stuff could be done within an hour really to make this happen.

So I hope this video has given you a good perspective of what SharePoint Designer can do for you, to help you customize and build really robust solutions in SharePoint, any version of SharePoint, Windows SharePoint Services, SharePoint Standard, SharePoint Enterprise, any of the versions that you can have can be enhanced using SharePoint Designer. If you wish to see more information, more demos on how you can make those robust solutions using SharePoint Designer, please visit SharePoint-eLearning.com.