SharePoint Magazine

Silverlight in SharePoint

Learn how to turn silver into gold in our new series!

ASPIRING AUTHORS COMPETITION FINALISTS ENTRIES!

The end of an Era: Joel Oleson Retires

New Series: Silverlight in SharePoint

A jQuery Primer for SharePoint: Selectors, Attributes, and Traversing – Oh My!

SharePoint Magazine

Issue #2

Contents

Featured Articles

The end of an Era: Joel Oleson Retires

One of the truly great heroes of the SharePoint community, Joel Oleson, has decided to drastically reduce the time he spends in the community. For those who do not know yet, I'll try to describe the loss the community will suffer from this giant's retirement.
PAGE 6

Silverlight in SharePoint

In the beginning there was SharePoint, a platform for collaboration and content management. It allows people to work together. It's an easy task to set up a site where people can share information and manage documents from start to finish.
PAGE 8

Selectors, Attributes, Traversing – Oh My!

Welcome back to "a jQuery Primer for SharePoint" here on SharePoint Magazine. It's time to take a closer look at some examples of using jQuery to locate the correct elements in an HTML page.
PAGE 24

LETTER FROM THE EDITOR

TAKE 2 – ACTION!

It was a daring attempt, trying to convince tech-savvy users that a print magazine is still a good idea. Frankly, your responses have been nothing short of amazing. So, here it is, the second issue of SharePoint Magazine print, and we've learned a lot from the first issue as you will see.

Make sure you pick the entry you really like, because you will be reading a lot more from that author in the months to come.

As you have noticed, this second issue of SharePoint Magazine has a different layout than the first issue. Or rather, we realized that we needed to make some changes to increase readability and make it look more professional. I hope you like what we've done, but as always we're thrilled to hear any comments you may have, whether that is positive or negative feedback.

We can only improve if you let us know what you want us to do better!

There are other changes too, and I would like to point some of these out.

QR Codes

You may notice a lot of strange images spread around the magazine, with what looks like black and white pixel codes. In fact, you will find one somewhere on this or the next page, and one on the front page of the magazine.

These images as QR codes, or Quick Response codes, and they are amazingly cool. What they allow you to do is open pages, links, and articles by using your mobile device to scan these codes. That way, you don't have to type long URLs in order to open these links, and they save a lot of layout space compared to typing out long URLs.

These codes also allow us to improve the connection from the paper version of SharePoint Magazine to our online resources. For example, for many articles, we have included the QR code both to the online version of the article as well as resources for those articles.

Many mobile devices have built-in applications that allow you to scan these tags. If your mobile device does not include a QR scanner application, chances are you can find one for download, and they are usually always free.

The way such a scanner works is by using the camera of your mobile device. You launch the scanner application, hold the camera so that it can see the code, and then the application will open the link or perform optional tasks, such as bookmarking, copying, or searching, depending on the particular application.

CNN has a brief guide for you to see on http://spm.to/qr

Go ahead, try it out! You'll find lots of codes to try out in this magazine.

Quick Courses

Another neat new feature, also a result of requests for more information from readers, are Quick Courses. These courses are based on our parent company USPJA's training platform.

Quick Courses are self-paced training courses

covering a small topic, usually based on an article or article series in SharePoint Magazine. The Quick Courses are available for a small fee and gives you the training material and sometimes lab time available in our virtual lab environment so that you can get the hand-on experience too.

Our first Quick Course will be available shortly, and if you are reading this magazine a few weeks after its release, that's likely now. We have several of these courses planned, so watch the Quick Courses page or sign up for the SharePoint Magazine mailing list to keep informed.

We're also looking into bringing partners on board to showcase their products in free courses and labs. That way, you'll have a chance to try of their products and services for yourself to make better decisions.

Oh, and of course, if you work for a company that wants to showcase your products, webparts, solutions, or features, feel free to contact us and we can outline the options for you.

Aspiring Authors

We've completed the first stage of the Aspiring Author Competition 2011, and in this issue, you can read the finalist entries.

The jury had a very hard time picking these finalists. In fact, we spent a full week, reading and feedbacking all the entries, and were left with five very good articles.

The final three will now compete in a community challenge to determine the winner of the competition. You can join and vote for your favorite article up to May 31st, and we will announce the winner in the next issue.

The winner will receive a scholarship at USPJ Academy, a publishing deal with SharePoint Magazine, and participation in our upcoming Author Mentoring program. The grand prize has a value of

over $6,000.

You can read more about the finalists and how to vote, including the finalist articles, from Page 30.

Make sure you pick the entry you really like, because you will be reading a lot more from that author in the months to come.

Want to Join Us?

We are always looking for skilled and passionate writers to help us bring the best SharePoint knowledge out to the SharePoint community.

Although it is too late to join this year's Aspiring Authors competition, that doesn't mean we stop looking for talent. If you want to write for us, we would be thrilled to hear your ideas.

On the last page of the magazine, you will find information about the benefits of working with us, but let me sum it up for you real quick:

- We have a huge audience craving knowledge

- We help you become a better author

- We help you grow your audience and reach new arenas

- We pay you for your work

What we don't do is pick up just anything, so before getting in touch, make sure you read through our article content guidelines. You can find these guidelines at http://spm.to/acg

After reading through that, either send a general inquiry to pub@editoruspja.com, or submit a pitch for an article on http://spm.to/ap

After that, one of our editors will get in touch with you and discuss your ideas. Who knows, perhaps it will be your mug shot adorning one of the articles in the next SharePoint Magazine?

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THE END OF AN ERA:

JOEL OLESON RETIRES

One of the truly great heroes of the SharePoint community, Joel Oleson, has decided to drastically reduce the time he spends in the community. For those who do not know yet, I'll try to describe the loss the community will suffer from this giant's retirement.

Y*ou don't get as many fans as Joel has without stepping on some toes every now and then.*

Because I consider Joel a personal friend, who has on several occasions offered his guidance and support both in public and in private, I've chosen to write this eulogy not as a simple list of Joel's accomplishments, but as an expression of what I personally feel at this moment.

Joel Who?

I realize there are billions of rocks in the world, and if you're just emerging from underneath one of those rocks, or from some cave completely void of internet access, you may not know who SharePoint Joel is. Let me explain.

In days yonder, I started exploring SharePoint and as everyone else, literally had Google search for SharePoint topics as my start up page. More often than not, however, I found myself staring at one particular person's face, that of some guy called Joel Oleson, whenever I needed something really thorough and well explained.

When Twitter came around and started becoming the de facto standard for community interaction, Joel Oleson quickly became the most followed SharePoint superstars out there. It's not that he manically followed everyone who followed him, like some people do to increase their followers. In fact, it took me almost a year of hard work before I finally got an email saying that "@joeloleson is following you".

No, Joel became as popular as he is by being there

for the community. By responding to questions, by speaking at events, by providing valuable information in his blog, and by taking an active part in the community that he loved and still loves. Joel has done an amazing job, bringing SharePoint knowledge to the masses, and doing so in an entertaining fashion, making him perhaps the world's most popular speaker at SharePoint events.

But It Can't Be All Good, Right?

You don't get as many fans as Joel has without stepping on some toes every now and then. Joel has fought several battles in the community, but what distinguishes Joel's battles from most of the other petty fights we see sometimes, is that Joel always fights for what he believes is best for that community. When he launched the idea of the SharePoint knights, for example, he got the wrath of a large group of influential people thrown in his lap.

However, Joel didn't launch the idea because he himself needed a title; he already was the most popular SharePoint guy in the world. He thoroughly believed that an independent system of community recognition would benefit that community and thus championed the idea. He fought valiantly, but in the end saw that the fight split the community and lay his idea to rest.

Another example is his periodical stabs at Steve

Ballmer. In short, and as he himself publically says, he wants Steve Ballmer to step down. In less politically correct terms, he's saying Steve Ballmer is bad news and doesn't do his job very well.

However, Joel isn't asking Steve Ballmer to step down because Joel wants to be the CEO of Microsoft. In his arguments, he always focuses on how communities, not just that of SharePoint, would benefit from having fresh blood in the Microsoft leadership.

It is not even only SharePoint that's on Joel's mind. Whenever there is a disaster somewhere in the world, or when people are in jeopardy, or fighting to claim their rights against oppressive dictators, Joel is among the very first to offer whatever support he can, even if that is just changing his Twitter avatar or mentioning a prayer for his friends in need.

It is no coincidence that when Joel now steps down from his role in Quest and from the public eye of the SharePoint community, he moves on to work for a non-profit organization where he can further help and contribute in his own way to a better world.

So, Why Is He Leaving If He Loves The Community?

Only a few people in the world can even be compared with Joel when it comes to single-handedly building and nourishing the SharePoint community. Joel has spent the last few years traveling around the world to speak at everything from small user groups to huge conferences. He never forgets to bring his experiences and stories out to his blog or his Twitter followers and thus contributing to bringing people from around the world together in a common interest.

What he seems to have forgotten though, is that all his dedication has had a price, and a steep one. In the previous three years, Joel has been traveling for 300 days, most of the time away from his family. As he says it himself, they have been getting the short side of the stick, which, I believe, means they've been the ones to suffer from his community dedication.

I have no problems understanding that. I don't think anyone will. Now, it's time for those even closer to Joel to benefit from his kindness, wisdom, and presence. Now, it's time for those who have sacrificed access to their father and husband so that we could enjoy Joel, to get their well-deserved rewards.

Joel will receive plenty of thanks. I'm confident the community will not squander our chances to express that gratitude.

However, I'd like to take this chance to thank Joel's family.

Virginia, thank you, from the bottom of my heart, for letting us spend so much time with your beloved husband.

Dean, Scott, and Jared, you have a father of which you should be very proud, and you should know there are thousands of people in the world who owe your father a great debt of gratitude.

Thank you.

INTRODUCTION AND SERIES OVERVIEW:

SILVERLIGHT IN SHAREPOINT

By: Karine Bosch

S harePoint 2010 comes with a set of client object models that makes it easier for developers to have a Silverlight application communicate with SharePoint.

In the beginning there was SharePoint, a platform for collaboration and content management. It allows people to work together. It's an easy task to set up a site where people can share information and manage documents from start to finish.

SharePoint 2007 was already good, but SharePoint 2010 is even better. New features such as taxonomy, document sets, content organizers, and better record management make it to an attractive platform. The user interface on the other side is not that attractive. But with a little bit of branding you can create a new look.

And here enters Silverlight. Silverlight is a powerful development technology for creating attractive and interactive user interfaces.

The first version of Silverlight was released in 2007. It was merely JavaScript based. Almost everybody was skeptical about it, and it was said that it would never have the grandeur of Flash. But as versions come and go, Silverlight has become a full-blown solid technology for designing powerful user interfaces.

A Silverlight application can be more than a pretty user interface created by designers; you can also add code to it to give it a more functional aspect. Because Silverlight classes are a subset of the .NET Framework, it makes it easy for .NET programmers to add the necessary functionality. Moreover, a designer can create the user interface with a tool like Microsoft Expression Blend and hand it over to the developer, who can open it in Microsoft Visual Studio and complete the application.

In April 2010, Silverlight 4 was released with yet another new set of features.

From the first version of Silverlight, I have been involved in the integration of it into SharePoint, and I'm convinced that Silverlight can play a powerful role in the branding of SharePoint sites. Silverlight applications can communicate with a SharePoint site and thus render SharePoint data in an attractive way.

The first versions of Silverlight were hard to integrate with SharePoint, asking for a number of modifications in the web.config file of each SharePoint web application. It drove a lot of SharePoint developers (and even a number of well-known SharePoint gurus) mad. As of Silverlight 3, this hurdle has disappeared.

In SharePoint 2007, communication was possible only through the SharePoint web services or through custom WCF services. But SharePoint 2010 comes with a set of client object models that makes it easier for developers to have a Silverlight application communicate with SharePoint.

In SharePoint 2010, Silverlight is already integrated out of the box: if you want to create a list or a site, you are presented with a Silverlight wizard. SharePoint 2010 also comes with a Silverlight web part that lets you render a Silverlight application that you uploaded to a document library or deployed to the SharePoint hive. There is also the out-of-the-

box Silverlight media player. This is a Silverlight application that you can host within the Silverlight web part and that displays your media files.

A View on the Future

In December 2010, Scott Guthry announced Silverlight 5. This version of Silverlight will add some great new features and capabilities for premium media solutions across browsers, desktops, and devices. The first beta version of Silverlight 5 is expected in the first half of 2011.

Silverlight for Windows Phone is the application development platform for Windows Phone 7. Silverlight uses the XNA framework for audio capture and playback and can even access Xbox Live. This XNA framework is provided by Microsoft for high-performance gaming, used on Xbox.

In 2010 we entered the mobile phone era. We use our mobile phones for calling people or sending short messages, but more and more we are also using the Internet from our phones. Many companies see the hole in the market and start developing mobile phone applications. The banking sector, for example, will offer its services through mobile phone.

In that light, I believe that there is a future for SharePoint-based applications running on mobile phones.

What to Expect from This Series

When I talk about Silverlight integration in SharePoint, most developers think about web parts. But this integration can reach far beyond that. You can host Silverlight applications from within most SharePoint artifacts such as custom fields, custom list forms, list views, application pages, master pages, navigation, search, and so on.

At the same time, we will demonstrate the different options for deploying a Silverlight application. The application can be deployed to a document library, as well as to the SharePoint file system, or as an embedded resource if you don't want others to use your Silverlight application.

We will build and extend a SharePoint demo application through this series. The application allows members to offer services and accept services in return. For example, John likes to garden, but he is lousy in the kitchen. Through the application he can

offer his services as a gardener and accept Suzy to cook him a delicious meal.

Part 1: Overview

This series of articles will walk you through the different techniques that you can use to integrate Silverlight 4 in almost any SharePoint 2010 artifact. In part 1, this article, I'll give you an overview, both of Silverlight and the remainder of the series.

Most of these techniques are also applicable for SharePoint 2007.

Part 2: Integrating a Silverlight 4 Application in a SharePoint 2010 Web Part and in a Web Part Tool Part

In the second article in this series, I will explain how you can integrate a Silverlight 4 application in both a Visual web part and a classic web part. More complex web parts can be configured in a custom tool part. Silverlight can also be hosted from within such a tool part.

The web part will show a dynamic banner that displays the services offered that day. This web part can be added to the home page, for example. In the tool pane, the editor of the web part will be able to choose a background color using a Silverlight color picker.

As the offered services are stored in a SharePoint table, they need to be retrieved by the Silverlight application before they can be displayed in a dynamic banner. This can be achieved by using the Silverlight Client Object Model and will also be highlighted in this first part.

Part 3: Using a Silverlight Application in a Custom List Form

Custom list forms can be defined when working with custom content types. When you define a content type, you can go for the classic list forms, but you can also define a custom list form to offer a more attractive and intuitive user interface. This argument makes this SharePoint artifact as an excellent candidate for hosting a Silverlight application.

If you want your Silverlight application to be something more than a fancy header or footer and you want it to play a functional role in your list form, you will have to put some extra effort in the way you save and display the data. In this sample, a user will be able to post a new service offer or modify certain

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properties of an existing service.

Part 4: Hosting a Silverlight Application from Within a Custom Field Type

As you will see in part 4, hosting a Silverlight application directly from within a custom list form has its own particularities. Therefore, encapsulating functionality in custom fields makes integrating Silverlight even easier.

Part 5: Hosting a Silverlight Application from Within a SharePoint Application Page

This page will allow members to manage their offered services and choose the service they want to get in return for it. In part 5, we will see how this is done.

Part 6: The Silverlight List View Style

SharePoint lists have a number of standard view styles that you can apply when creating views. You could develop your own view style using Silverlight to show the content of a picture libraries in a far more attractive way.

Part 7: Using Silverlight to Enrich the Master Page

Master pages are used to ensure a standard look and feel through the whole website. You can decide to integrate Silverlight into this standard look and feel.

Part 8: Replace the Top Navigation Menu Bar by a Windowless Silverlight Application

This sample will demonstrate how you can replace the classic quick launch and the top navigation bar by a Silverlight application. By making the Silverlight application windowless, you can avoid that the content of the page moves down while submenus fly out.

Part 9: Empowering Sandbox Solutions with Silverlight

Since SharePoint 2010, sandboxed solutions seem the way to go because each solution runs in its own isolated process without endangering the whole system or eating too much resources. The drawback is that the offered functionality has a number of

limitations. By using Silverlight in your solution, you can circumvent certain of these limitations.

Part 10: Integrating the Silverlight PivotViewer in SharePoint Search

The Silverlight PivotViewer is a Silverlight application that makes it easier to interact with massive amounts of data in ways that are powerful, informative, and valuable. You could integrate this PivotViewer on a search page to build an informative and attractive search experience.

Part 11: Integrating Silverlight in a SharePoint Workflow

Integrating Silverlight graphs in the task pages of a custom approval workflow can make the decision process easier.

Part 12: Integrating WPF in an Office 2010 Task Pane

Silverlight is in fact a subset of Windows Presentation Foundation. Like in Silverlight, the user interface is defined in XAML, and functionality can be added in code behind. This article will demonstrate how you can host a WPF application from within an Office task pane. Because this application does not run within the SharePoint context, you cannot use the Silverlight Client Object Model. However, there are a number of alternatives to access SharePoint information, such as, for example, using the REST services.

Part 13: Using the SharePoint Web Services from Within Silverlight

Another way to access SharePoint data remotely is using the SharePoint web services. This technique is certainly valid when working with SharePoint 2007 data, whether the Silverlight application is running in or out of the SharePoint context.

So, that's what I have coming for you. Over the next months, join me on this journey to explore Silverlight in SharePoint, and you'll learn how to effectively utilize this great technology to make your SharePoint adventures that much more user friendly.
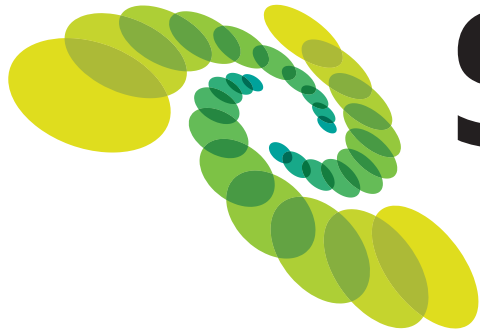
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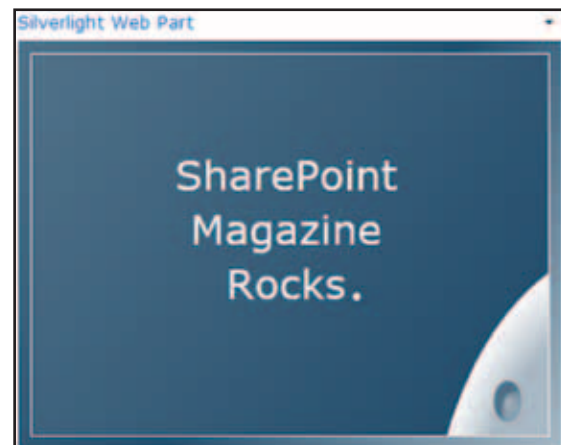
http://spm.to/sub

BASICS OF "HELLO WORLD!"

By: Karine Bosch

In this second article of the series, I'm going to build a Silverlight application that can be hosted from within a SharePoint web part. We will use Visual Studio 2010 to build a simple "Hello World" type application, but add a few touches to make our application configurable.

In SharePoint 2010, we have an out of the box Silverlight web part that can host almost any Silverlight application. For now, we will utilize this built-in web part and later in the series, we will create our own web part to host our applications.

The Silverlight application in this example asks the user to enter 3 words. The words can also be configured through the Properties of the web part. These words will be passed to the Silverlight application, which will render these words in an animated way.

Developing a Simple Silverlight application

You can create a simple Silverlight 4 application using Visual Studio 2010. If you need more complex design you will need tools like Microsoft Expression Blend, but the sample Silverlight application for this article can easily be build in Visual Studio 2010 using the Silverlight Application template.

When creating a Silverlight application with Visual Studio 2010, you will be asked which version of Silverlight application you want to design. For this sample I selected Silverlight 4. You can also

indicate whether you want to create a test web site or not. As the sample needs to communicate with SharePoint, it cannot be easily tested running outside the SharePoint context, so I choose not to host the Silverlight application in a web site.
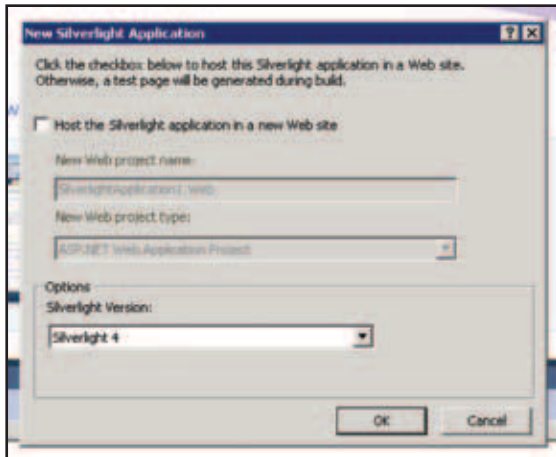
When a Silverlight application is created, the following parts are automatically added to the project:

App.xaml

The App.xaml file is typically used to declare resources that can be used throughout the application. These resources consist of brushes, styles and animations.

App.xaml.cs

The App.xaml.cs file is the code behind file for the App.xaml and can be used to handle application level events. There is already a method stub for the Application_Startup, Application_Exit and Application_UnhandledException events available. When the Silverlight application initializes the Application_Startup event is triggered. I typically use this event handler to retrieve the incoming parameters.

MainPage.xaml

The MainPage.xaml file is by default the initial UI control. Within this UI control you can start defining the user interface.

MainPage.xaml.cs

The MainPage.xaml.cs file is the code behind for the MainPage.xaml. The events generated in the UI control are handled here. You can also dynamically load controls in code behind and consume WCF services, or communicate with SharePoint using the Silverlight Client object model.

ARTICLE

SOURCE CODE

Besides these parts a Silverlight application can also contain other user controls, other classes and interfaces.

The point of entry of the Silverlight application is the Application_Startup method. The StartupEventArgs argument contains information on how to initialize the Silverlight application. One of these elements is the InitParams dictionary. It can be used to pass information from SharePoint to Silverlight.

The Silverlight application in this sample accepts 3 words that will be rendered using storyboards. The values are stored in static variables that can be accessed form within the different controls that make up the Silverlight application .

```
public static string Word1 =
null;
public static string Word2 =
null;
public static string Word3 =
null;
```

The Application_Startup method looks as follows:

```
private void Application_
Startup(object sender,
StartupEventArgs e)
{
    if (e.InitParams != null)
    {
        Word1 = GetParam(e.
InitParams, "word1");
        Word2 = GetParam(e.
InitParams, "word2");
        Word3 = GetParam(e.
InitParams, "word3");
    }
    this.RootVisual = new
MainPage();
}

private string
GetParam(IDictionary&lt;string,
string&gt; initParameters, string
paramName)
{
    if (initParameters.
ContainsKey(paramName) &&
    ! string.IsNullOrEmpty(initP
arameters[paramName]))
    {
```

```
    return
initParameters[paramName];
    }
    else return null;
}
```

The last statement in the Application_Startup method shown above initializes the main user control of the Silverlight application. The XAML of this control is very simple and contains the following elements:

- a Canvas: this is the root control of the user control.

- 3 TextBox controls: these will be populated with the words passed in

- 3 Storyboard elements: these element are responsible for making the words mover over the screen from bottom to top.

- a Circle which represents the dot of the sentence.

- a fourth Storyboard that will move the dot over the screen as flying comet.

The code behind of the MainPage user control is stored in the MainPage.xaml.cs file and starts storyboard after storyboard: when the first storyboard finishes, the second is started and so on. The following code snippet demonstrates this technique:

```
private void StartAnimation()
{
    Word1TextBlock.Visibility =
Visibility.Visible;
    Storyboard sb = (Storyboard)
this.FindName("MoveWord1");
    if (sb != null)
        sb.Begin();
}

private void MoveWord1_
Completed(object sender,
EventArgs e)
{
    Word2TextBlock.Visibility =
Visibility.Visible;
    Storyboard sb = (Storyboard)
this.FindName("MoveWord2");
    if (sb != null)
        sb.Begin();
}
```

That's it for the code in the Silverlight application.

Silverlight

application in

this sample

accepts 3 words

that will be

rendered using

storyboards.

The Silverlight Web Part

Now it is time to deploy the Silverlight application to SharePoint. The easiest way is to upload the .xap file to a document library. In this demo I'll upload it to a document library with the name XAPS. SharePoint 2010 comes with an out of the box Silverlight web part. You can add this web part to any SharePoint page and host your Silverlight application from within it. You can add this web part to for example the home page. When in the Web Part Gallery, you can find the Silverlight web part in the Media and Content category.
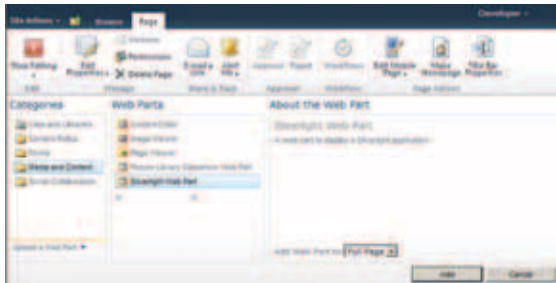
When you choose to add a Silverlight web part to your page, a dialog pops up asking you to enter the location of your Silverlight application.

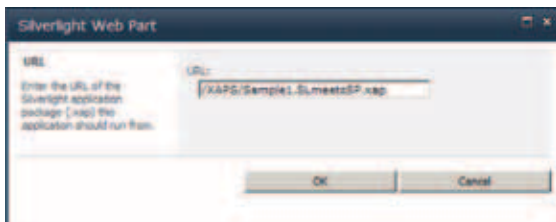In the editor part of the web part you can enter the initParams string requested by your Silverlight application. In this sample you have to pass the name of the list where the service offerings are stored. Scroll down in the editor part and expand the Other Settings section. There you can enter your initialization parameters. If you have a parameter to pass, you have to specify the name of the parameter followed by an equal sign and the value:

param1=value1

If you have more than one parameter to pass, you'll have to separate them with a comma:

param1=value1,param2=value2

Pay attention not to add spaces in between. The maximum length of this string is 255 characters.

If you need to pass more data, you'll have to use a workaround. These workarounds will be explained in further articles of this series.

Our parameter string exists of 3 words:
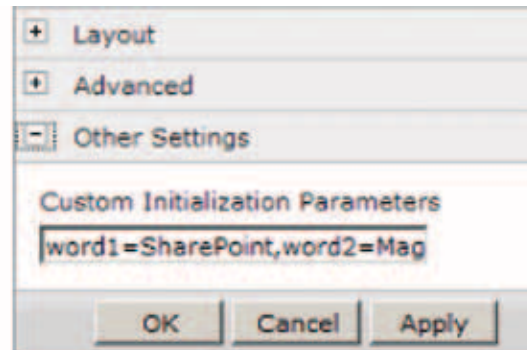
Once you set the initialization parameters you can click the OK button of the web part. The Silverlight application will rendered on the page.
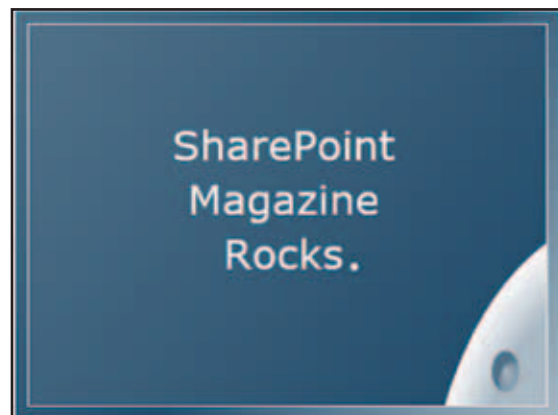
If your Silverlight application doesn't show on the page, it is possible you have typed an error in the path to the Silverlight application, you can always correct by editing the web part and clicking the Configure button in the Properties pane.

In this article you learned how to host a Silverlight application from within the out of the box Silverlight web part. The Silverlight application in this article is a very simple application that accepts a number of initialization parameters that are passed from the SharePoint web part to the Silverlight application.

In the next article of this series you will learn how to use the Silverlight Client Object Model to retrieve and update data stored within SharePoint.

TRAINING AS EMPLOYEE PERKS

*E*ven if you offer new employees $150,000 every year, they can still pick from 35 available positions right now.

In the previous columns, I've been discussing the economic sides of employee training. You've learned that training is massively expensive if seen as an isolated expense. However, when seen in conjunction with the soft benefits, such as increased accuracy, faster task execution, and ability to tackle more varieties of tasks, training begins to make sense.

Before I expand on the hard numbers, however, I would like to mention another important aspect of the return on investment (ROI) of training, that of employee satisfaction and motivation.

Finding the Right SharePoint Professional

At this time, SharePoint professionals are in huge demand due to SharePoint's success at delivering value to organizations. These organizations spend huge amounts of resources finding and recruiting skilled employees. Wages are through the roof because employees know that with the right skillset, they can easily get a new job any time, and when they need a job, they will have plenty of job offers.

At the time of this writing, a simple search for "SharePoint" at monster.com gives more than 1,000 results for vacant positions. Filtering the results for jobs paying more than US$100,000 still leaves 163 available jobs. At US$150,000 and above, 35 jobs remain. This means that even if you offer new

employees $150,000 every year, they can still pick from 35 available positions right now.

You can probably realize the challenge employers face in finding skilled labor.

To attract the right people, most employers offer incentives to employees, in the form of perks, higher wages, extended vacations, and so on. However, these types of extrinsic perks are pure expenses for the employer; they get nothing in return beyond the employee's demands being met. After securing the momentary happiness and signature of the employee, the employer does not share in the benefits the employee gets.

Luminaries such as B.F. Skinner question the effect of such extrinsic incentives. The result is often reduced motivation because employees come to expect these incentives and will be disappointed when they don't get them continuously. In a famous study, a company started giving out turkey's to all employees for Thanksgiving. Initially, all the employees were extremely happy about this, but after a few years, everyone simply saw it as a routine, so when the company decided to stop giving out these turkey's,

employees became extremely demotivated, seeing the annual turkey as a part of their regular benefit.

If companies that rely on extrinsic motivation wants to keep motivating employees, they need to continually increase the value of these perks, leading to a spiral of death where expectations increase every time a perk is offered. Paying people more isn't enough to keep them motivated.

Besides, every other company that may be competing for your employees may also buy turkeys and thus remove your competitive advantage with the signing of a purchase order with their local Turkey farm.

Keeping Employees Happy

Finding and recruiting SharePoint professionals is difficult enough, but hanging on to them and making sure they don't leave the company is an even bigger challenge. After all, paying employees the high salary is only part of the cost. The cost of recruitment is also a factor and can easily reach 20-30% in commissions to headhunters alone. For a $100,000 job, that's $30,000 every time you need to get a new employee. It's an investment you don't want to lose.

But how do you actually retain those hard-earned SharePoint professionals? You do that by keeping your employees motivated and satisfied, which begs the question: What motivates employees?

Even basic research will quickly tell you a few key points:

- Feeling of job and task mastery

- Healthy work environment

- Work/Off-work balance

- Varied and challenging tasks

- Community and social aspects

Extended training directly affect many of these points. Increases in skill means that employees feel they master their jobs, feel less unhealthy stress, can perform their work faster and thus get more free time, and allow the employees to tackle a wider range of tasks.

As for community, well, one thing is the community that the employee meets during their training, but even better is the community building effects of training groups of employees in the organization. People who share more than project deadlines tend to bond better through shared experiences and skills.

Employees that feel valued by their employers are likely less concerned with what other employers may offer. Employers that help employees master their jobs are more likely to keep skilled employees. Increasing the feeling of job satisfaction and mastery is far more important than increased salary or other extrinsic benefits.

The final benefit I'll talk about here, which makes training as a perk an absolute no-brainer, is that the employers will also gain from having skilled employees. As I have discussed previously in this column, skilled employees help the organization deliver what they promise, when they promise, and within the expected budget. Skilled employees will affect also other employees and further increase their skills, multiplying the training effect.

In short, it's a win-win situation. Investing in training benefits both the employees and the employer. When you know that getting these benefits for the organization also benefits the employee, I really can't understand why you're not right now planning the next training course for your SharePoint team.

IS SHAREPOINT READY FOR ENTERPRISE-STRENGTH APPLICATIONS?

By Ronan Lavelle

*C*ontracts really are 'mission critical'. Around two thirds of all business transactions are governed by contracts or agreements of one kind or another

Recent research from Global 360 backs growing evidence that SharePoint is increasingly being deployed not just for simple collaborative tools, but as a robust platform for enterprise-wide requirements, for supporting numerous departments in mission-critical processes.

A case in point is automated contract lifecycle management, which in our own experience, we are seeing a growing number of companies adopting, across multiple departments.

When we were designing our own contract lifecycle management system, because we were starting from scratch, we were able to evaluate all the potential technology options available to us. We chose SharePoint as our basis, because it provides everything we and our customers need in one platform. As

Tim Wallis, CEO of Content and Code, one of the original pioneers of SharePoint solutions, says: "SharePoint is a platform that can do everything well. While some point solutions may do some things better, SharePoint is a good all-rounder."

Predicted by Forrester Research to be a market growing at 27% per annum as an IT market, contract lifecycle management (CLM) systems make a good marriage with SharePoint. Indeed, SharePoint has proved to be a catalyst for the contract management, because it has exactly the right attributes required: it can be enterprise-wide, it is flexible enough to inter-operate with a variety of systems and devices, and it is highly collaborative.

You may be thinking to yourself "So contract lifecycle management systems and SharePoint go well together, but so what? Why should I be interested in suggesting better contract management to my organization anyway?"

Two main reasons: contract lifecycle management can provide organizations with tangible cost and efficiency benefits; and second, it is an ideal example of how return-on-investment and advocacy of SharePoint can be spread beyond the boundaries of the IT department to other parts of the organization.

Starting with that first statement, let me describe the importance of contracts, why managing them is such a challenge and how introducing contract lifecycle management systems help.

Contracts really are 'mission critical': around two thirds of all business transactions are governed by contracts or agreements of one kind or another and Gartner estimates that at any one time, a large organization will typically have 20,000-40,000 contracts.

Despite their central role in an organization, few companies have managed to implement contract management, largely because it is so fragmented. Contracts are generally created and stored at departmental-level – such as finance, procurement, sales, human resources - typically using a variety of formats and systems, both electronic and in some cases, paper-based.

The legal department usually only gets involved if it has to review a document, or if a problem arises. Review of contract revisions is a pretty archaic process: often involving posting or faxing drafts between the negotiating parties, so it may be no surprise to hear that Forrester Research says a contract takes on average 3.4 weeks to create.

This lack of control is further exacerbated by the fact that after they are created, these contracts are then stored in a variety of different formats and locations, ranging from emails through to paper-based copies stashed away in forgotten filing cabinets. This means that the vital data in these contracts may be not easily visible or accessible, and perhaps difficult to

find again. Indeed, Faulkner Institute estimates that approximately 10 per cent of all contracts created are lost.

When contract lifecycle management really matters

Does this matter? Yes, because failure to observe contractual milestones and obligations, or just a sheer inability to have a 'total picture' of contract liabilities, can cause problems such as wasted expenditure, inefficiency and increased exposure to business risk. Here are some anecdotal examples that we have come across in the past few years:

Failure to observe automatic contract renewal clauses - One company was tied into a 15-year renewal on a property lease that it had intended to terminate, simply because no-one was aware of the impending automatic renewal date.

Missing a chance to negotiate better terms with suppliers – lack of organization-wide visibility of the contracts may that one department may be enjoying better contract terms with a particular vendor than another.

Missing opportunities for rebates – for example, contracts may include incentives for early repayments.

Compliance and legislative issues – an inability to have full visibility of all contractual liabilities can cause lack of compliance with industry regulation or legislation. Human resources contracts may contain terms that could lead to litigation from ex employees if not observed.

Mergers and acquisitions – we know of one instance when an acquisition fell through because the company being purchased was unable to provide full disclosure of its contractual obligations

Contract Lifecycle Management Systems

Clearly, contract lifecycle management is an area ripe for improvement. Enter contract lifecycle management systems as the solution.

Tangible benefits include faster contract creation, reduced manual effort and less risk of missing contractual milestones and obligations, because the system can be set up to send out automatically generated alerts concerning these.

Greater visibility of contractual obligations organization-wide means that the legal function can more effectively support colleagues in other departments, but at the same time, individual departments do not lose control or responsibility for creation contracts.

For example, creating contract templates means that non-legal professionals can have greater confidence that they are adhering to corporate guidelines, while the legal department does not have to spend hours dealing with problems that have arisen through poor contract processes.

By providing organization or department-wide visibility, contract lifecycle management systems also reduce dependency on any one individual having full control over a particular contract. Jim Callaghan is General Counsel for Etihad Airways, the world's fastest growing airline, which has implemented a SharePoint-based contract lifecycle management system from Dolphin Software. "The system has perfect transparency – we can see where a document is at any one time, and because the system is accessible to the whole department, if someone goes on leave, a colleague can pick it up."

So what features can one expect to find in a contract lifecycle management system? Different vendors (and there are quite a few now) offer different feature sets, but a comprehensive solution might include: A contract clause tracker; compliance monitoring & regulatory requirements; automated alerts; tracking of price rebates; reporting; contract negotiation workspaces; workflow and reporting tools; author workspaces; contract drafting and storage; tools that support collaboration on contract with external parties.

The latest generation of contract lifecycle management systems also include e-discovery of legacy contracts. This is an important point, because while it is tempting to rush into implementing a contract lifecycle management system for all new contracts, unless existing contractual milestones and obligations are included, then an organization does not have the full picture.

Our own research shows that around 80% of companies admit to not having full knowledge of all their legacy contracts, yet considering that contracts many last for many years, then it is reasonable to assume that a large organization will have thousands of legacy documents. Indeed, we have just helped one media company 'discover' approximately 30,000 legacy contracts.

Organisation-wide appeal

Hopefully I've demonstrated the potential benefits of contract lifecycle management (CLM) systems to an organization, but they also have a benefit to proponents of SharePoint. Since CLM systems can touch on so many parts of an organization, they are a classic example of SharePoint solutions that are not only 'enterprise' strength, but in many cases, their adoption is being spearheaded by legal, CFO or procurement functions. Of course, the IT department is still very much involved, but CLM systems are ambassadors for the SharePoint cause beyond the boundaries of the CIO's remit. Indeed, the content within CLM systems supports the argument that many SharePoint applications should not be managed by the IT function, but instead, by a records manager or someone with content expertise.

This brings me back neatly to my opening claim that SharePoint has huge potential as an enterprise-strength solution and contract lifecycle management systems are one example of how SharePoint can generate a 'fan base' across the organization, provide tangible value. I would argue that it is a win-win situation: the business as a whole benefits, while the original internal champions of SharePoint are vindicated and can look forward to increased return on its investment.

Prior to founding Dolphin Software, Ronan Lavelle held senior positions at Hummingbird and OpenText. He is an associate member of the International Association for Contract and Commercial Management (IACCM) and an established author on contract management. In 2009, Ronan Lavelle founded Dolphin Software, shortly followed by the launch of Dolphin Contract Manager, which has been adopted by organisations in the USA, Europe, Middle East and Australasia - including Etihad Airways, Valve, Inc, Cricket Australia - and supported by a network of global offices and partners.

Creating contract templates means that non-legal professionals can have greater confidence that they are adhering to corporate guidelines.

HERDING CATS – HOW TO RUN A SUCCESSFUL CONFERENCE

By David Rubinstein

*W*e try to move from introductory sessions to more advanced and esoteric, while ensuring we have something for most job titles in each time slot.

Since SharePoint Magazine saw the first light of day, we have always considered the team behind SPTechCon as good friends. However, we have always been amazed at how smoothly these conferences go, and decided to ask conference chairman Dave Rubinstein to explain how that was possible. This is what he replied.

They say running a conference is like herding cats. It's more like herding cats, then feeding them, taking them to the vet, changing their litter boxes and showing them love while getting back a cold shoulder – all while avoiding scratches and fleas.

And that's when they run smoothly!

I've been the technical chairman of SPTechCon – BZ Media's SharePoint Technology Conference – since its inception, and if there's one thing I've learned, it's that when all is said and done, someone's going to have scratches and fleas – and it's usually me.

I'm about to give you a rare peek behind the curtain of what goes into making a successful conference. Names have been avoided to protect the innocent, and so that I can remain on very friendly terms with all the folks who help make our event so great!

My first task when a conference is coming up is to put out a "Call for Speakers." This gives our speaker base a heads-up that it's time to submit sessions for the next event, and (we hope) attracts some new voices in the community. When we did the first SPTechCon, I had to beg speakers to participate. Those that did would offer a session or two, and I'd have to go back to them to see if they could present six or seven. Most often, they were tremendously accommodating, considering we were a new player coming into the space.

Now that we're more established, I find myself in the unenviable position of having to turn speakers and their submissions away. For the last SPTechCon, in San Francisco in February, I had 163 session pitches from 57 speakers; I could only use 81 sessions, and didn't want to impose upon speakers to travel to

present just one session.

After the "Call for Speakers" closes, I get a veritable flood of emails from people who claim they never saw the call for speakers, and can they still submit sessions. Sorry, I reply with a smiley icon, but by now I have more than enough sessions for the program.

Now it's time to look through the submissions. Usually, I have about 15 session pitches on upgrading to SharePoint 2010, metadata and taxonomies, SharePoint governance and the always popular farm administration and maintenance topics. So, after much give and take, we get sessions that more closely reflect the broad capabilities of the platform.

Then they need to get slotted into the program. We try to move from introductory sessions to more advanced and esoteric, while ensuring we have something for most job titles in each time slot. We don't want a developer or an administrator or a business user, for instance, to have to choose from three sessions at 10 a.m., and not have one targeting him at 2 p.m.

After much more deliberation (I use sticky notes on a wall – quite high tech!), we get all the sessions slotted, take a step back, and do a considerable amount of self-congratulation. Off we go to get the catalog and program printed up.

Within a week, the printed materials arrive – all shiny and new, full of promise of a great conference, with great classes and great speakers.

Not so fast. No sooner do we have the printed materials in hand when I get the first email from a speaker telling me that now he can only speak on the first day of the conference, or from a speaker who only now realizes the dates conflict with something else in their lives and they're sorry, but they have to withdraw from the conference. (I've probably been told no fewer than 10 times from speakers that their wives are due to have a baby at the same time as the conference, so they'll have to stay home! No kidding! At LEAST 10 times! There are a lot of SharePoint babies in his world! Talk about sharing the love!)

No worries, I reply with a smiley icon. But in fact, I now have to find someone willing to present another session in that time slot, or switch with another speaker. And you can't do an easy switch, because we try to switch a developer session for a developer session, but other speakers also have limits on when they can speak, so moving one class to another time slot usually involves moving a half-dozen classes around. So much for those shiny new programs and catalogs!

So we print an "addendum" to the catalog, listing the new order of classes, with the new speakers replacing those who have dropped out along the way, in the room in which the session will be presented. Finally, success, right? RIGHT???

Almost. We get on-site, and see that a class that only a few attendees indicated they would attend is suddenly overflowing, and folks have to stand in the back, or skip the session entirely. So we scramble to find chairs and make people comfortable.

As I said, scratches and fleas.

But all kidding aside for a moment, working with the SharePoint community – speakers, third-party product providers and especially hearing the stories from our attendees of the projects they're working on and the problems they face – has been a remarkably rewarding experience for me.

And based on the most important feedback of all – people actually showing up – we must be doing a good job. SPTechCon 2010 in Boston sold out six week before the event, so for this year, we've moved to a bigger hotel (which will help us overcome one of our most frequent complaints – too few, too slow elevators!)

We hope you choose to join us in Boston this June 1-3 at the downtown Sheraton Hotel. I promise you will leave with a lot more knowledge of SharePoint than you came with.
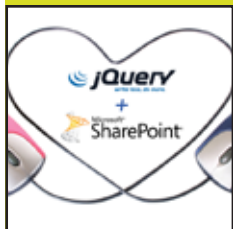
And no fleas!

http://www.sptechcon.com/

A JQUERY PRIMER FOR SHAREPOINT:

SELECTORS, ATTRIBUTES, TRAVERSING – OH MY!

*N*ow, we'd need to be careful about this because of one of the really cool things about jQuery: it will select ALL the elements that match the selector in the DOM.

Welcome back to "a jQuery Primer for SharePoint" here on SharePoint Magazine. It's time to take a closer look at some examples of using jQuery to locate the correct elements in an HTML page.

So what can you do with jQuery in a SharePoint context? I touched upon some of the general things that you can do in my last article, but in this one I thought I'd start to go through the main categories of functionality jQuery gives you, explain what they are, and give you some simple examples to show why they can be useful.

The jQuery site breaks jQuery's functionality into some really nice buckets:

• jQuery Core

• Selectors

• Attributes

• Traversing

• Manipulation

• CSS

• Events

• Effects

• Ajax

• Utilities

• jQuery UI

I find that this breakdown makes it relatively straightforward to think about jQuery, though it may seem a bit mystical to you until you can internalize the groupings.

In this article, we will look at three of the first four of these, selectors, attributes, and traversing. The jQuery Core is sort of an anachronism, harking back to the time when it was a separate component. Generally speaking, you don't need to think about the jQuery Core, as it is what gives you the jQuery and $ capabilities.

Selectors

I think that about half the battle with learning jQuery is getting the idea behind selectors.

Here's how I think about it: everything in the Document Object Model (DOM) that is sent from the server to the browser is data. The DOM happens to be a type of data called HTML, which is a special flavor of XML.

If you're starting from scratch, HTML looks something like this:

```
<!DOCTYPE html PUBLIC "-//W3C//
DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/
xhtml1-transitional.dtd">
<html xmlns="http://www.
w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-
Type" content="text/html;
charset=utf-8" />
<title>Untitled 1</title>
</head>
<body>
  <div id="helloDiv">
    Hello, world!
  </div>
</body>
</html>
```

This is the simplest HTML page you can create in SharePoint Designer 2007 by choosing File / New / HTML with the exception that I've added one div element with the "Hello, world!" text into the body section. It's such a simple page that you may not even see any value in it, but bear with me as we move forward, using this page as the basis for the examples.

A very simple selector for this page would look like this:

```
$("#helloDiv")
```

This selector will return an object which represents the div surrounding the "Hello, world!" text.

If you're familiar with Cascading Style Sheets (CSS), then you'll know that the pound sign (#) means "something with this id". So what we are doing in the selector is saying: find me something that has an id equal to "helloDiv". Ids are simply a way to attach a name to an HTML element so that you can refer to it more easily. Generally, in well-formed HTML, ids are unique within the DOM.

Here's a real example from a WSS 3.0 page. This is the part at the top of the Quick Launch where you see the "View All Site Content" link.

```
<DIV class="ms-
quicklaunchheader">
<A accessKey=3 id=ctl00_
PlaceHolderLeftNavBar_
idNavLinkViewAll href="/_layouts/
viewlsts.aspx">
View All Site Content
</A>
</DIV>
```

If we wanted to select the outer div above, we could do this:

```
$("div.ms-quicklaunchheader")
```

Now, we'd need to be careful about this because of one of the really cool things about jQuery: it will select ALL the elements that match the selector in the DOM. So if there were more than one div with its class set to ms-quicklaunchheader, then we'd end up with those objects as well. Although this truly is One Very Cool Thing, it's something you need to think about in your selectors.

Tip

Since there is only one div with the class ms-quicklaunchheader, it probably would have made more sense for Microsoft to have given the div a unique id. This sort of thing is one of the reasons that Web developers complain about SharePoint's markup all the time. It sometimes doesn't follow best practices – heck, it often doesn't follow best practices – which makes so-called "front end developer"'s jobs harder.

In this case, there is exactly one (1) div with the ms-quicklaunchheader class in any SharePoint page, at least as SharePoint renders them out of the box.

Here is another example:

```
var thisNavLinkViewAll =
$("#ctl00_PlaceHolderLeftNavBar_
idNavLinkViewAll");
```

The variable thisNavLinkViewAll now contains an object reference to the anchor tag. Note that I used the ugly id which SharePoint assigned to the anchor tag in my selector.

As you may know, SharePoint is built on top of ASP.NET, and ASP.NET is rife with really long and ugly ids, often containing long GUIDS, strings built of of the names of components and controls, and the like.

But wait, jQuery has capabilities to help with those silly, long ids (which are actually necessary, by the way, but still ugly). Looking at the id above, we can see that it ends in "NavLinkViewAll". It turns out that is in fact unique in the DOM. So we can take advantage of a nice jQuery trick:

```
var thisNavLinkViewAll =
$("a[id$='NavLinkViewAll']");
```

This different notation means: find me an anchor tag which has an id which ends with 'NavLinkViewAll'. Nice, eh?

There are a bunch of other notation options which you can use in your selectors based on the start of something [^=], whether it contains something [*=], and so on.

As I said, this is half the battle: finding what you want to work with in the DOM. Especially when you are working with SharePoint-generated pages, where you may not have a lot of control over what is rendered to the browser, you need to figure out something to select to get started.

I think of the initial selector as a sort of "anchor" which allows me to move forward. If we can't reliably find our place in the DOM, then we can't reliably manipulate anything down the line.

Attributes

Attributes are characteristics of HTML elements, such as the href attribute of an <a> element or the src attribute of an <img> element.

In the first example above, the only attribute that the div has is the id. That's not very exciting, so let's add something else. I'm going to use just the div element from the example above going forward so that I don't clutter up the page too much.

```
<div id="helloDiv" class="ms-
bold" >
    Hello, world!
</div>
```

I've added a class attribute to the div. A class refers to a named section in the CSS which describes how the element ought to be formatted.

In this case, I've borrowed a class that Microsoft put into SharePoint's core.css (but not core4.css in SharePoint 2010, for some reason) called ms-bold. All that class does is add

font-weight: bold;

to the formatting of the element to which it is applied. The net effect is that you get bold text.

Well, that's all well and good, but so what? Well, we can find and set attributes on elements by using jQuery.

```
$("#helloDiv").attr("class");
```

This returns the string "ms-bold". We might use this to find out what the currently applied style is for the "helloDiv" element. We can also set attributes like this:

```
$("#helloDiv").attr("class", "ms-
hidden");
```

There are special jQuery functions to work with classes (which are part of CSS – wait for it!) but we can also make changes this way. In the example above, I'm changing the class from ms-bold to ms-hidden. The effect of this is to "hide" the element

in the DOM because the ms-hidden class which Microsoft put into SharePoint's CSS sets

display: none;

From the user's perspective, the div just disappeared! Bang, we just did something which has an impact on what the user sees on the page.

Let's go back to our "View All Site Content" link again. Note that the anchor tag (the "<a>") has an attribute called accessKey, set to the value of 3.

```
<DIV class="ms-
quicklaunchheader">
  <A accessKey=3 id=ctl00_
PlaceHolderLeftNavBar_
idNavLinkViewAll href="/_layouts/
viewlsts.aspx">
    View All Site Content
  </A>
</DIV>
```

We can grab the value like this:

```
var thisAccessKey =
$("a[id$='NavLinkViewAll']").
attr("accessKey");
```

Now the variable thisAccessKey is set to the value 3.

We can also set the accessKey:

```
$("a[id$='NavLinkViewAll']").
attr("accessKey", 5);
```

Now the accessKey is set to 5.

Traversing

We know that we need to find a good "anchor" in the DOM from which to operate. What if we want to work with something which SharePoint generates that isn't tidily packaged up with an id or class? This is where traversing comes in. We can locate something which we do know how to find and traverse up, down, or over in the DOM tree to find what we really need.

The simple "Hello world!" example from earlier in this article has about outlived its usefulness, so let's look at the "View All Site Content" link again.

```
<DIV class="ms-
quicklaunchheader">
  <A accessKey=3 id=ctl00_
PlaceHolderLeftNavBar_
idNavLinkViewAll href="/_layouts/
viewlsts.aspx">
    View All Site Content
  </A>
</DIV>$("a[id$='NavLinkViewA
ll']").parent();
```

would give us the div which surrounds the anchor tag.

XML, and therefore HTML, has a concept of parents and children, just like databases and your own family. Everything comes from somewhere. The parent of the anchor tag here is the div. This means that the anchor tag is enclosed by the div.

We also can do something more like the reverse: select the parent and then traverse to the child:

```
$("div.ms-quicklaunchheader").
find("a");
```

This will select the div and then find all of the "a" tags within it. We know that there is only one in this case.

Traversing is incredibly important in working with SharePoint pages. When we want to work with the SharePoint out of the box forms, for example, many of the control elements don't have ids or classes which we can use in our selectors.

The next example is from SPServices. Here, I'm trying to find the left and right boxes for a multi-select lookup column like the one you see in the image.

The jQuery code is a little messy, but take a look:

```
var possibleValues =
$("select[ID$='SelectCandidate']
[Title^='" + opt.
multiSelectColumn + " ']");
var selectedValues =
possibleValues.closest("span").
find("select[ID$='SelectResult']
[Title^='" + opt.
multiSelectColumn + " ']");
```

Because it's the "easiest" thing to find, first I use a selector to get a reference to the "SelectCandidate" select element which is inside the left hand list in the image below.

Note that I'm using a pretty complicated selector to be absolutely certain that I'm ending up with the correct left hand list; there could be multiple multi-select lookup columns in the form.

Once I have that reference tucked away into the possibleValues variable, I go looking for the right side list. I traverse from the possibleValues element "up" to the closest span (.closest("foo") means traverse up the tree until you get to the first foo element) and then find the select for the right side box.

Again, I'm using a complicated selector to be sure I have the right thing. It's always better to be more specific if you can, especially when you don't have full control over the DOM, like when you are working with SharePoint!

Summary

I can see that you're eyes are glazing over a little at this point, so I think I'll call it a day for this article. We've looked at how you can find things in the DOM with selectors; check the attributes of things; and traverse up, down, and across the DOM tree. The examples are simple, but hopefully they are enough to get you interested in digging into these ideas a bit more.

These capabilities alone should show you the power of jQuery. Sure, you might say that you can do all these things with straight JavaScript, and you'd be right. However, you'd be writing a *lot* more code, which would increase the development, testing and maintenance costs for your solutions.

A take away assignment for you is to go off and do a little research on CSS concepts if you aren't familiar with them. So much of what you are used to seeing on the "modern Web" is driven by smart use of CSS that if you choose to ignore CSS, you're doing the old "cutting off your nose to spite your face" thing.

If you've gotten this far in the article and you think "Well, this doesn't look like any fun AT ALL. I'm going back to my .NET work.", then maybe that's not such a bad thing. It's better to stick with what you know and not move forward, right? I will make you a wager that if you learn these concepts, even if you never write a single line of jQuery yourself, you'll become a better all around .NET programmer, too.

In the next articles, I'll take you through some more of the jQuery capabilities that can kick things up yet another notch.

ASPIRING AUTHORS COMPETITION 2011 FINALISTS

After several weeks of hard work from many competing authors, the SharePoint Magazine Aspiring Authors jury has reached its decision on the three finalist entries. Since then, we have gone through an accelerated editing process to get these finalist entries ready. Today, we're making the finalists known along with their entries.

Now it is time for the community, meaning you, to decide which of these entries and authors deserves the grand prize.

The Entries

We have now posted each of the finalist entries as featured articles on SharePoint Magazine. The finalists are, in no particular order:

- Mikael Svenson's "Three Main Reasons Why You Should Upgrade to FAST for SharePoint"

- Josh McCarty's "Best Practices for SharePoint Groups"

- Andrew Vevers' "A Guide to Leaving Lotus Notes and Moving to Microsoft SharePoint"

HOW TO VOTE

Over the next pages, you will find the finalists as determined by the SharePoint Magazine jury.

Please read each of these entries and decide which author you think deserves to win.

The SharePoint community has always been great at utilizing social features. As such, we've decided to utilize a social feature, namely Facebook, to run the vote. It's as simple as this:

At the top and bottom of each finalist article is a 'Like this' button. For the article, or articles, you think deserves to win, click that button to cast your vote. You can vote for either a single or for multiple articles, but we only count one vote per person per article.

At the end of June 3, 2011, Central European time zone, we count the number of Likes for each article, and the article that has most often been liked will be the winner.

Sounds like a plan? Good, then get to it and help decide which author most deserves the grand prize!

READ THIS ARTICLE ONLINE

THREE MAIN REASONS WHY YOU SHOULD UPGRADE TO FAST FOR SHAREPOINT

BEST PRACTICES FOR SHAREPOINT GROUPS

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BEST PRACTICES FOR SHAREPOINT GROUPS

By: Josh McCarty

When your permissions get more complex, it's important that you not only manage your permissions, but also manage your groups and use them effectively.

SharePoint permissions are confusing for most new site admins. However, use of SharePoint groups is key to effective permissions management in SharePoint. Without them, sites quickly become overrun with dozens of individual users that have varying degrees of access, including the dreadfully unhelpful "limited access" permission level.

SharePoint permissions are confusing for most new site admins. At my company I see the majority of site admins (we call them site owners) struggle with them. The topic is complex because SharePoint provides so many options for managing permissions. Between the various permissions levels, inheritance, site/list/item-level permissions, version control, draft item security, Active Directory (AD) groups, and SharePoint groups, explaining the best way to manage permission would take several articles.

With that in mind, I want to focus on one particular area—SharePoint groups. Use of SharePoint groups is key to effective permissions management in SharePoint. Without them, sites quickly become overrun with dozens of individual users that have

varying degrees of access, including the dreadfully unhelpful "limited access" permission level.

What are SharePoint Groups?

A SharePoint group is a "container" that allows site admins to group users so certain tasks are easier to manage. Examples of SharePoint groups include:

All authenticated users – they should have read access to all department top-level sites. They would be added to the Visitors groups of those sites.

All members of a department – they all need contribute access to the department site so they can upload and update team documents. They would be added to the Members group of their department site.

All C-level executives (CEO, CFO, COO, CIO, etc.) – they need special access to a site with sensitive documents that nobody else can access. They would be added to the Members group for the special site.

All SharePoint Admins – they need full access to the root of the site collection. They would be added to the Owners group for the site collection.

A good site administrator uses SharePoint groups to assign permissions to users that need similar access to the same sites, lists, and libraries. They can also be used in workflows to assign tasks to groups of people instead of just individuals. Even if only one person needs to have special access to something, it's a good idea to create a SharePoint group and add that person to the group. You may need to give others the same special access in the future, and adding them to a group is quick and easy; you also have the benefit of giving the group a descriptive name and a description with a link to the site/list/library that has the special access.

SharePoint does an OK job for you by creating an Owners, Members, and Visitors group when you create a site (unless of course you choose to inherit permissions from the parent site). However, when your permissions get more complex, it's important that you not only manage your permissions, but also manage your groups and use them effectively. As you start creating more specialized groups beyond the default Owners, Members, and Visitors groups that SharePoint creates, you should follow some best practices to ensure that you can easily keep track of the groups over time. The information below applies to both SharePoint 2007 and 2010 except where noted.
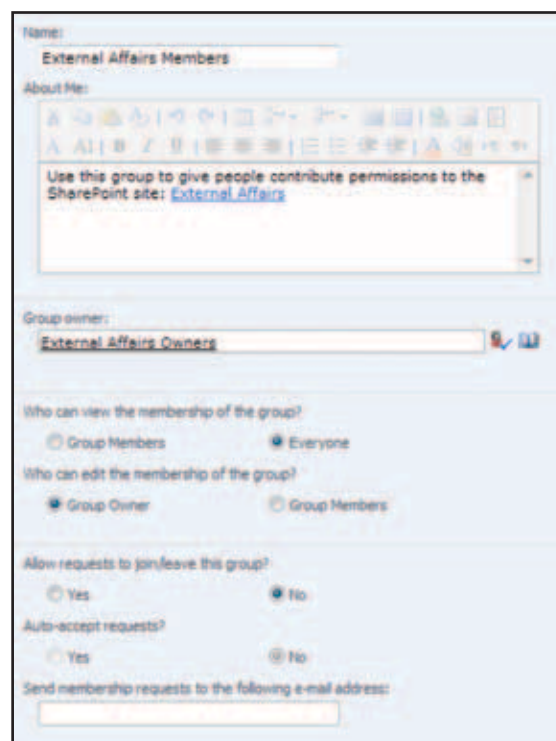
Group Settings

SharePoint groups have several settings that can be changed, including the Name, About Me, and Group Owner fields. To modify group settings, go to the People and Groups page for the site (/_layouts/people.aspx), select the group you want to modify from the Group Quick Launch, and go to Settings > Group Settings.
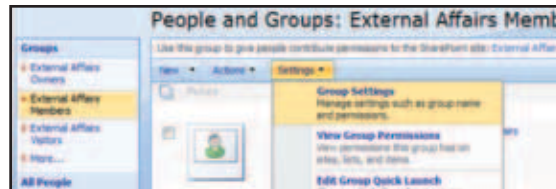
By default any groups you create manually and any groups that SharePoint creates as part of the site creation process are initially owned by you. This means you can add and remove people from the group and change the various settings for the group.

However, you will want to change the Group owner of every group to another group and make sure that this other group contains at least two people. By doing so, you ensure that if any one person in the owning group is unavailable, the other person(s) in the owning group can perform any tasks for that group. This applies to the default Owners group for the site as well; you can even set the Owners group to own itself (this is what I usually do).

Sometimes you might want to let the members of the group manage themselves; this way the owner(s) of the group don't always have to be bothered with every request to add or remove members. For example, if you create a team site, you might want to let the team add/remove people from the site's Members group. To do this, select the "Group Members" radio button in the Who can edit the membership of the group? field on the Group Settings page for the Members group.

Members of this Site setting in particular has a few "extra" features for My Site profiles and the Site Users web part

Notice the naming convention that SharePoint uses when it creates groups. The name of the group includes the site name—"External Affairs" in the screenshot above—along with a brief description of the role or access level of the group—"Owners." Just by looking at the name of this group, a site admin can quickly determine that the group most likely has full control access to the External Affairs site.

Also take note that the About Me field in the previous screenshot has a description that SharePoint generated automatically. This is a great practice to follow when creating your own groups to meet more complex permissions requirements.

For example, let's say you create a group called "External Affairs Blog Approvers." This group includes several users who are responsible for approving comments on the blog site for the External Affairs department. You could include a description that says "Use this group to give people approve permissions to the comments list on the SharePoint site External Affairs/Blog." I also recommend making the name of the site into a hyperlink to the site itself.

Why is this important? It lets other people know what the group is used for and provides a quick way for them to view the specific site that the group is being used on without having to hunt for it. When viewing the list of all groups on the /_layouts/groups.aspx page, the About Me information is displayed next to the group, providing a one-click link to get to the site that the group is being used on.

Active Directory and Groups

Depending on your environment, you might have Active Directory (AD) groups that you can use to manage permissions in SharePoint. You could assign permissions directly to the AD groups themselves; this practice sounds good on paper—why re-create groups when they are already created and maintained by the IT department? However, there are a couple of caveats with this approach.

I suggest reading http://sympmarc.com/2011/02/16/active-directory-groups-vs-sharepoint-groups-for-user-management-a-dilemma/ and http://sympmarc.com/2011/02/22/active-directory-groups-vs-sharepoint-groups-for-user-management-the-denouement/ to learn about some of the advantages and disadvantages to using AD groups. To sum it up, AD groups do not let you look "inside" them from the web UI in SharePoint. You have no idea who

is in the AD group, which could be a problem for site admins. SharePoint groups do allow you to look inside them, and you can even display all members of a group using the Site Users web part. This is a handy feature for collaboration sites that I'll cover in a moment.

Neither way is right or wrong, just different. You could even create a SharePoint group with all of the members, and then you could add the AD group to it as well for redundancy.

Set Up Groups and Group Quick Launch

When you create a new site and use unique permissions, SharePoint asks you if you want to use existing groups or create new ones. It also asks you to assign either the new groups or existing groups as the Visitors to this Site, Members of this Site, and Owners of this Site as shown in the screenshot below. This seems like no big deal, right? You tell SharePoint to create new groups (or re-use groups if you already have some made), and it assigns Read, Contribute, and Full Control access to each group accordingly.


Although this is convenient, it doesn't seem all that special at first glance. However, the Members of this Site setting in particular has a few "extra" features for My Site profiles and the Site Users web part (more on this below).

The Visitors and Owners group settings don't provide any "cool" features like this; they simply assign Read and Full Control access to the respective

groups. However, this is still a convenient way to set permissions if you decide to change which groups you use on the site for Visitors and Owners.

If you created a site that inherited permissions, these settings will also be inherited. However, if you later decide to change what the Owners, Members, and Visitors groups for the site are, you'll want to edit these settings instead of just changing the permissions for the site. You can do this from the People and Groups page in SharePoint 2007 by going to Settings > Set Up Groups and selecting the groups you want to use in each field.
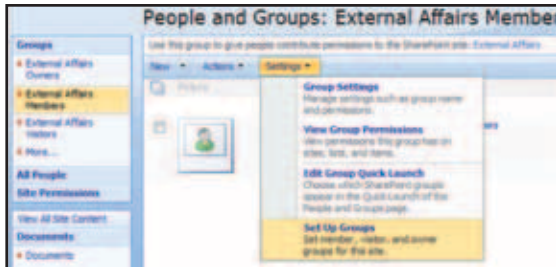
In SharePoint 2010, you can access this page at /_layouts/permsetup.aspx. Alternatively, if you want to change which group is used as the Members of this Site group to enable the Site Users and My Site features, first view the group you want to use, then select Settings > Make Default Group.
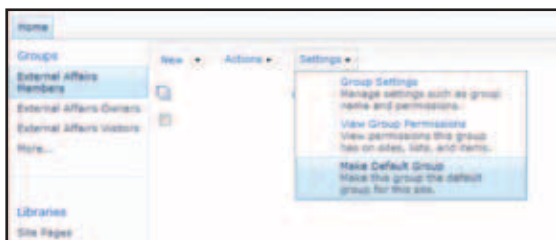

The My Site Profile and the Members Group

When a user is in the Members group for a site, and that members group is used in the Members of this Site field, the SharePoint will list the site on the user's My Site profile page. When someone else views that user's profile, they can see that he/she is a member of the SharePoint site. This can be useful for networking or looking up contacts for a particular site.

The Site Users Web Part and the Members Group

When I build an ad-hoc site for a project, I like to add the Site Users web part to the home page and have it display all people in the site's Members group. A lot of project teams get a kick out of this because it lets them see who's busy (via Office Communicator presence) and also lets them look up someone's phone number or email. Often these sites are being used by people across departments, and not everyone knows each other. Using the Site Users web part in this manner gives them a convenient way to look up contact information for their teammates.

To do this, add the Site Users web part to the page. Modify the web part and select the option to "Show people in this site's member group." The web part will now display all of the people who are in the Members group for the site, with presence information.
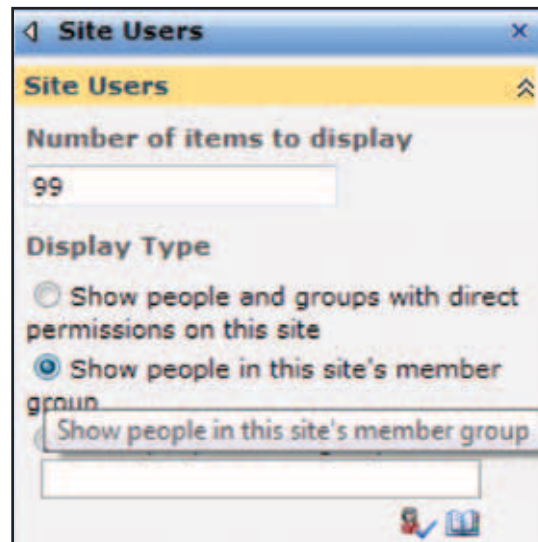
The web part also displays a convenient link for adding new users to the Members group.
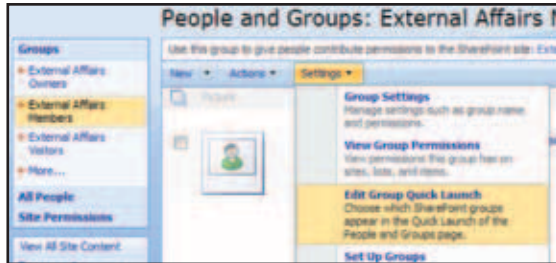
Group Quick Launch

When I'm on the People and Groups page, I always make sure that every group I need to work with for the site is included in the Group Quick Launch. This provides a one-click shortcut to view the members of each group being used on the site. SharePoint includes the Owners, Members, and Visitors groups by default, and it will also include any new groups

you create if you create them from the current site. Unfortunately it does not automatically include groups if you created them on another site and decide to add them to the current site's permissions at a later date.

You can remedy this by adding the groups to the group quick launch. In SharePoint 2007, on the People and Groups page for your site, go to Settings > Edit Group Quick Launch.

In SharePoint 2010 this option isn't on the People and Groups page. Navigate to the People and Groups: All Groups page (accessed at _layouts/groups.aspx or by clicking on the "Groups" link at the top of the Group Quick Launch or the "More…" link at the bottom), then you'll see the option in the Settings menu.
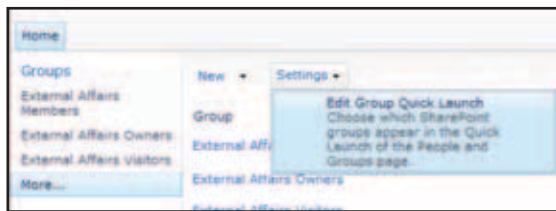
From here you can add any additional groups that you'd like to manage on the site. This is site-specific, so you'll need to do this for every site and sub-site individually (when creating new sub-sites that inherit permissions, the sub-site will have all of the groups that the parent site has). I'm a bit of a neat-freak, so I also use this page to re-order the groups alphabetically and by access level.

Now all of your groups will be included in the Group Quick Launch for convenient access when you need to manage them!

Full Control – Use Caution!

Before we wrap up, I strongly recommend keeping your Owners group(s) to a small number of people. Owners groups are usually set up to have full control access to a site, which means that people in the Owners group can give others full control access, who in turn can give even more people full control access. You can see how this could quickly explode into a permissions nightmare if the people in your Owners group(s) don't understand your permissions strategy. By keeping the Owners group(s) to just a few people, you can help to uphold the governance policies of your sites.

All too often I've seen sub-site sprawl because a director didn't have time to manage a site and gave full control to his/her subordinate managers, who in turn gave full control to some of their employees because they also didn't have time. Instead of two or three people with full control access to the site, all of a sudden 15 people had access and were creating sub-sites for bowling leagues, picnic photos, book clubs, etc. It's not that these kinds of sites are bad, it's just that they should be planned and built with a little bit of strategy in mind instead of having silos of uncontrolled, totally organic sub-site sprawl for every team in the department.

Let's Review

SharePoint groups allow you to manage permissions for multiple users at the same time while keeping things more organized.

Always manage permissions with groups; if an appropriate group doesn't exist, create it, even for a single person—at the very least you can add a description for what kind of access the group/person has, and at best you can easily grant the same access to additional people as-needed.

Use standard naming conventions—site name + access level or role.

Use a description that includes a hyperlink to the site(s) or lists/libraries that the group has access to.

Never set the owner of a group to an individual

person; if that person is unavailable, it will be more difficult to manage the group. Typically you'll want to use the Owners group of the current site as the owner of all groups used on that site.

You can use AD groups to manage permissions, with some caveats. You can also include AD groups inside SharePoint groups.

Make sure that Visitors, Members, and Owners groups are established on the Set Up Groups for This Site page. For SharePoint 2010, use the Make Default Group option in the Settings menu to set the Members group for the site.

SharePoint will list the site on the members' My Site profiles.

The members can be automagically listed in the Site Users web part.

Include all groups for your site in the Group Quick Launch, that way you can quickly and easily access them to manage group membership from the People and Groups page.

Keep your Owners group membership to a minimum. Anyone with full control access can grant full control access to others, so permissions can get out of control if too many people have full control and don't understand your permissions management strategy.

I hope these best practices can help you to manage your SharePoint groups as they start to grow in complexity. They've definitely helped me over the past few years! Keep in mind that this is mostly based on MOSS 2007, but the principles still apply for WSS and SharePoint 2010.

This article is a finalist entry in the Aspiring Authors Competition 2011.

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I'm not sure it's quitelike this but, for various reasons, many organisations are moving from Lotus Notes to SharePoint.

A GUIDE TO LEAVING LOTUS NOTES AND MOVING TO MICROSOFT SHAREPOINT

By: Andrew Vevers

The battle for the collaborative application space has been long fought. Two key players, Lotus with their Notes/Domino platform and, more recently, Microsoft with SharePoint, have established their own collaborative platforms having different feature sets but a common goal – to allow individuals, teams, departments and organisations to work more effectively together. In this article, you will learn ideas and approaches to simplify moving from Lotus Notes to Microsoft

An organisation's investment in a collaborative platform can mean significant financial and staff investment. Moving an organisation from one platform to another produces a number of

challenges. This article, aimed at a SharePoint 2010 developer who also understands Lotus Notes development, introduces some of the considerations when migrating applications from Lotus Notes to

SharePoint. Although you won't be a migration ninja after reading it, you will at least be more aware of the obstacles that you will face and be more equipped for the road ahead!

A couple of caveats first: my Notes development experience ended with version 7. If the current version, 8.5.2, has a nifty new feature called "Migrate Complete Application to SharePoint in 1 Click", then that's great, but I shall only address my knowledge up to version 7. Also, views are my own and not those of my employer.

In 2005 IBM portrayed Microsoft as being utter failures at collaboration by listing thirteen "failed" products in their "Collaborative Graveyard" image.

(Facsimile of copyrighted presentation slide, IBM, 2005)

Six years on, Microsoft would like to depict their collaborative offering as somewhat brighter.
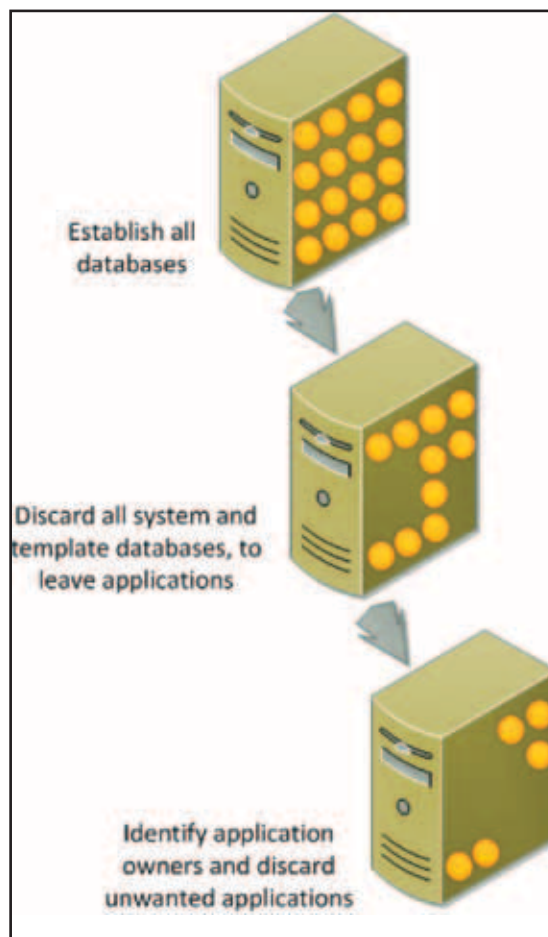

I'm not sure it's quitelike this but, for various reasons, many organisations are moving from Lotus Notes to SharePoint. I would like to share some ideas and approaches to simplify your own migration.

Successfully migrating from Notes to SharePoint can involve much work but I believe it boils down to three key phases: application/owner audit, cleansing, and migration.

Application/Owner Audit

Deliverables: known applications, known owners, known migration decisions

To know what to migrate ideally requires an up-to-date application and owner inventory. The main approach should be to establish a list of all of the Notes applications in your organisation. From this list, discard those that you know you definitely don't need (such as system databases). This core list then allows you to focus on which can stay and which can go. At each stage, your number of applications is reduced, as illustrated below.
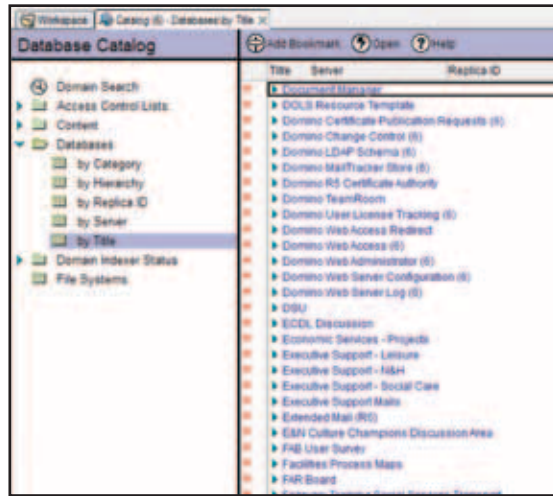

Establish all databases

Discard all system and template databases, to leave applications

Identify application owners and discard unwanted applications

If you don't have an application inventory, or cannot consider third-party analysis products like those from Quest or Binary Tree, start by grabbing a copy of your Notes Domain Catalogue (catalog.nsf).

This catalog copy can become your actual migration monitoring application. After discarding the known unwanted applications, amend the main form to capture:

- application metadata (path, size, number of documents)

- security – ACL, use of readers/authors fields, field-level encryption

- potential owners (retrieved from document authors, the ACL and the user history)

- screenshots and descriptions

- questionnaires – a list of who has already been consulted

- migration checklist

Next, consult your users to find your applications' owners and whether the applications are required. A questionnaire could be implemented into your Notes migration application to ask simple questions such as:

- do you use this application?

- are you the owner of this application?

- do you still require this application?

This questionnaire could be implemented using a simple form, using a workflow as illustrated below.

Your questionnaire responses may fall into six broad categories:

- Migration to SharePoint not required

- remove the application now

- application has a limited shelf life - retain the application until end of life and then retire

- don't migrate but export the data to CSV, Excel, XML, etc.

- Migration to SharePoint required

- migrate functionality only

- migrate the functionality/data but not the security (use SharePoint security)

- migrate everything

As can be seen, there are two types of migration – design and data. But before that, the big clean up.

Cleansing

Deliverables: functional specifications and clean data sets

Cleansing is the process whereby the application is made good to go (literally)! I see two necessary types - design cleansing and data cleansing.

Design cleansing refers to the production of a

Despite these factors, your main focus should always be on reproducing the functionality, not adding unnecessary bells and whistles.

functional specification by a business analyst in consultation with the users. This should focus on what the application does, not how it does it. Technology should not be considered; I'd recommend not even looking at the old Notes code!

Data cleansing, ideally performed by the business, refers to the removal of any data no longer required (it's useful to enforce a cut-off date for this). If you think they might not be sure what they need to keep, consider offering to migrate the last six months' data or implement a per-GB data migration charging model. That'll get them thinking!

Migration

Deliverables: migrated applications/data

Now it's time to consider the actual migration, which I see as having one or two components depending on your owner's requirements - design migration and data migration.

The Design Migration

The design migration is the job of your developers. Look for common functionality across all of your applications before any development. Identifying reusable functionality or the need for site definitions will save time and effort in the long run.

Consider which applications:

- use a standard Lotus template
- use an in-house template
- contain design elements that use an in-house template
- reference shared LotusScript/Java script libraries
- connect to other Notes databases (dependant databases might need to migrate as one group)
- connect to non-Notes sources
- map to standard SharePoint sites and lists
- are true one-offs
- rely on real-time updates
- contain "large" numbers of documents
- contain "large" security models (document-level permissions)

Your approach to how you develop certain functionality can be influenced by:

- the complexity of your Notes application's security model
- the SharePoint feature set (2007? 2010? Foundation? Enterprise?)
- your organisation's willingness to use third-party products or SharePoint migration tools (vs. in-house development)
- your organisation's acceptance of "against-live" tools, such as SharePoint Designer or Nintex Workflow
- your organisation's definition of "like for like"
- your ability to influence your management!

Despite these factors, your main focus should always be on reproducing the functionality, not adding unnecessary bells and whistles. Visual Studio should only be considered after the simpler development in the web interface (UI) has been ruled out. Start with the UI and take that as far as you can. Development and deployment become increasingly complex the more you move away from the UI and into custom code, as illustrated below.
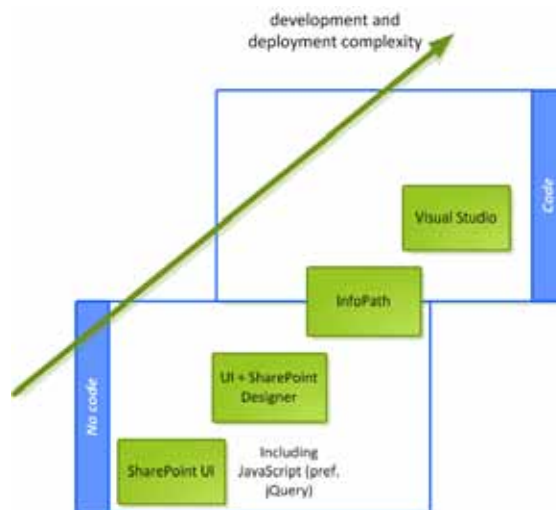
Establish a set of Notes/SharePoint "functional equivalents". The table on the next page can help you understand how you can implement Notes features in SharePoint.

Two essential developer tools for migration work are InfoPath and SharePoint Designer.

InfoPath is the closest match for a RAD Lotus Notes developer and is excellent for:

- "hide-whens", using formatting rules
- complex validation rules

Lotus Notes	SharePoint	
	UI	Code
"large" number of documents	split documents into multiple libraries; use folders	store in SQL with SharePoint front end (BCS)
document-level security	SPD workflow action	break permission inheritance, apply permissions to users/groups
hide custom action based on role		apply unique, non-utilised permission to users; display custom action only to users holding that permission
"hide-whens"	XSLT List View Web Part/Data Form Web Part with XSLT	custom application page to selectively hide/display panels InfoPath formatting rules
scheduled agent	force code to run on front page load of site (need to guarantee application will be accessed each day)	custom timer job
send an email	SPD workflow action	email routing method
view icons	SPD conditional formatting	JavaScript page injection to convert inline HTML to rendered icons

Table: Notes features implemented in SharePoint

- complex data structures - with promoted InfoPath fields, you get the additional goodness of document libraries

As well as superb UI design capabilities, SharePoint Designer (2010) workflows should be able to reproduce a significant number of your Notes workflows - whether it's changing the status of a document, sending an email or locking a document.

You may also need to consider:

- if a third-party product would suffice

- migrating your application to Exchange

- developing inside an Excel spreadsheet, Word template or Access database

- Beyond "core" SharePoint development, you may also wish to:

- host a SQL server backend with a SharePoint front end

- retain the Lotus Notes backend but host it in SharePoint, using an iframe. (I would discourage this as you may need to change Domino to use IIS as an alternative HTTP stack, authenticate using Active Directory, and possibly web-enable the Notes application. Notes is going anyway after all!)

The Data Migration

Standard Notes fields (text, choice, dates, etc.) can map easily to SharePoint list columns. However, it's not all so simple, as Notes documents contain rich text fields and these can store pretty much anything. It's not uncommon for a single Notes document to have multiple rich text fields, each containing mixtures of formatted text, attachments, and Object Linking and Embedding (OLE) objects.

You may need different migration targets for different types of data contained within a rich text field. Consider, for example, fifty pdf files inside one Notes field. How should these be migrated? Here are just three possibilities - one SharePoint document library storing one document which itself contains fifty attachments, fifty SharePoint document libraries each storing one document having one attachment, or any number of alternative combinations.

As you can see, Notes data migration might not just be about "lift, move and dump". You may have to consider information architecture as well.

A couple of additional data tips:

Before the data migration, ensure any existing Notes workflows are completed. Then block all users. That way, you can ensure the data to move is accurate and complete.

Links inside Notes documents can point to other Notes documents which will break once the data has migrated to SharePoint. Tools like Quest's can monitor and replace document links.

After your migration, redirect Notes users to the new SharePoint site (this should work whether the Notes application was for the client or the web). Eventually remove the Notes application completely (and ring a bell).

Final Recommendations

Knowing in advance what to have in place and what to avoid can make your migrations that little bit smoother. Here are three recommendations.

Avoid Co-existence

Geographical separation of your users might mean that one set of users uses the Notes application and another is using the SharePoint conversion. You may then need to use a real-time link re-direction and data synchronisation service (for example, Avepoint's) to ensure that both applications can co-exist. But try to avoid it!

Consider A Directory Name-Mapping Service

To preserve name-based document security, develop a Domino Directory to Active Directory name mapping. This could, for example, consume an AD web service.

Develop A Core Code Library

Hardly unique to a SharePoint development environment, but the more you can reuse, the quicker the migration.

Conclusion

Lotus Notes and SharePoint both provide compelling enterprise collaboration platforms, each having unique feature sets and limitations. Migrating from Notes to SharePoint adds an extra challenge on top but, with an appreciation of both platforms and thorough thought, planning, and a simplistic functional focus, your migration can be less painful, less time-consuming, and more efficient. I hope this article has provided ideas and inspiration.

This article is a finalist entry in the Aspiring Authors Competition 2011.

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THREE MAIN REASONS WHY YOU SHOULD UPGRADE TO FAST FOR SHAREPOINT

*W*hen creating a search solution you need content to be searchable.

By: Mikael Svenson

Wonder whether FAST for SharePoint is right for you? In this article, you will learn how three of the technical features included in FAST for SharePoint will help you solve specific business pains that are not easily accomplished with the out of the box search solution in SharePoint 2010. The examples will give you insight in how these technical features will make a difference for your particular business.

Since May 2010 we have been reading the product sheets and been given marketing pitches from Microsoft regarding the different search offerings in SharePoint 2010. Looking at the feature comparison chart for the three different SharePoint 2010 search offerings, it might be difficult to see which features are actually giving you more business value, and which ones are nice to have or eye candy.

Working in the field of search for the past 11 years has taught me to have ready answers when a customer asks why they should invest in a particular search technology. With several offerings for search in the SharePoint space, it is important to know what business value each solution provides.
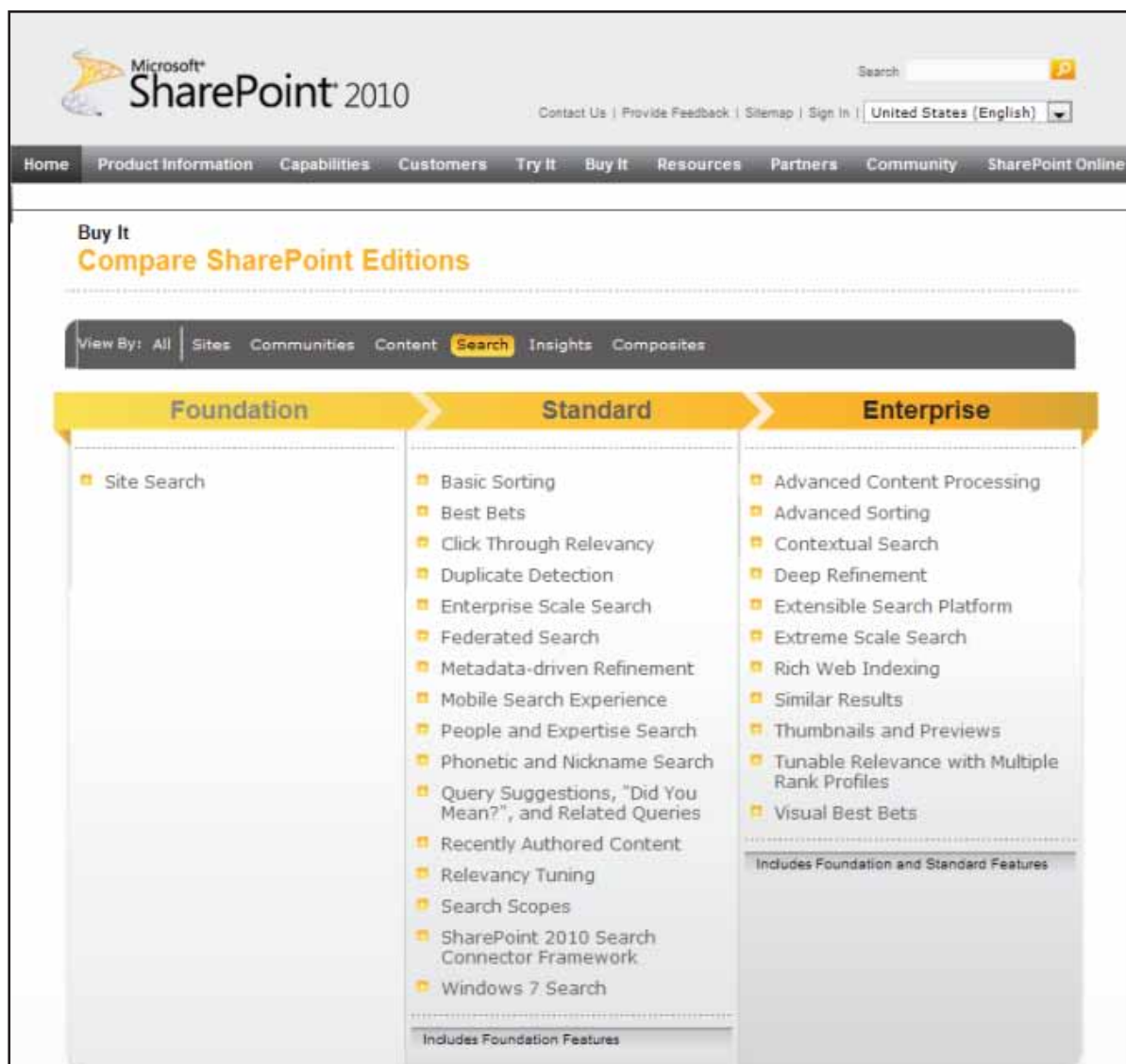
Reason 1: File Format Support

When creating a search solution you need content to be searchable. For SharePoint solutions the majority of this content is documents produced by information workers. Typically it will be Microsoft Office formats like Word, PowerPoint, and Excel, but also Adobe PDFs, e-mails and CAD drawings.

In order to support most binary formats outside of the Office Suite, you will have to purchase third party IFilters to do the conversion into plain text, which in turn can be indexed by the search engine. You have no real control over what metadata they extract, and how metadata will differ from other text in the documents. While the IFilters are often fairly cheap, you have to shop around to get a complete offering to cover your all of your file formats.

Come to the rescue: FAST for SharePoint. Bundled with FAST for SharePoint is a feature called the Advanced Filter Pack. This is a document conversion library by Stellent (now part of Oracle), which handles 200+ document formats, including the ones for which you would usually buy IFilters.

The two formats I have come across most times with customers are the already mentioned Adobe PDF as well as AutoCAD files. If a particular business does any kind of manufacturing, product design or owns installations of some kind, they probably have CAD files as part of the content. If this is the case, my bet is they want to search it.

This is where we start to solve business pains and extract real value from the content.

Oddly enough the Advanced Filter Pack is turned off by default. It can easily be enabled with a PowerShell command, and I see no reason why you would not want this feature turned on after installing FAST for SharePoint. When executing the PowerShell script to enable the Advanced Filter Pack, a warning will be displayed: Beware; you might actually get some useful metadata and text from your files!

The second point to note with the Advanced Filter Pack is that metadata from the conversions are now available to you in a structured form inside the content processing pipeline, which leads me over to Reason 2.

Reason 2: Advanced Content Processing

With the default search offering with SharePoint 2010 you have no control over the data being available to you in the index. Sure you have crawled properties which you can map to managed properties, but you cannot create new ones or modify the content in the ones being outputted by the crawlers and IFilters. With FAST for SharePoint you are given an extensibility point where you are free to do whatever you want with any data or metadata during

indexing.

How does this apply to business pains and real business value? When indexing several content sources, or even a single one, having multiple variants of a project name, product code or the name of a person is common and something you have to deal with. You typically want to deal with these variants as the same entity. Using built in word mapping in FAST for SharePoint or creating custom ones allows you to easily map several entities to one.

Example 1 – Normalizing a name

Barack Hussein Obama II	Barack Obama
Barack Obama	Barack Obama
Obama	Barack Obama
President Obama	Barack Obama
Senator Obama	Barack Obama

Example 2 – Normalizing a product

|	
iPhone 3GS	iPhone
iPhone 4	iPhone
iPhone 32GB Black	iPhone
MC605KN/A	iPhone
I3GS-B	iPhone

These are just two simple illustrative examples. You can do more advanced processing as well, like parsing xml files, calling a third party OCR (optical character recognition) module, enrich metadata with calls to Internet services, or in an enterprise settings where security is key, you might want to run the content through a module that removes terms which should not be listed due to security clearance levels.

This is where we start to solve business pains and extract real value from the content. By modifying, cleaning and enriching the data we can build much more sophisticated search solutions tailoring real business needs in the organization.

Of course this is not as easy as it sounds. It requires you to actually analyze the business domain, the business content (text and metadata) and business processes. Then you must try to map your findings to an information model which resembles how employees work with and consume data.

In the information model below, which was developed for an oil drilling company, the black boxes are pivotal entities around which all information revolves. The grey boxes above are instance types of
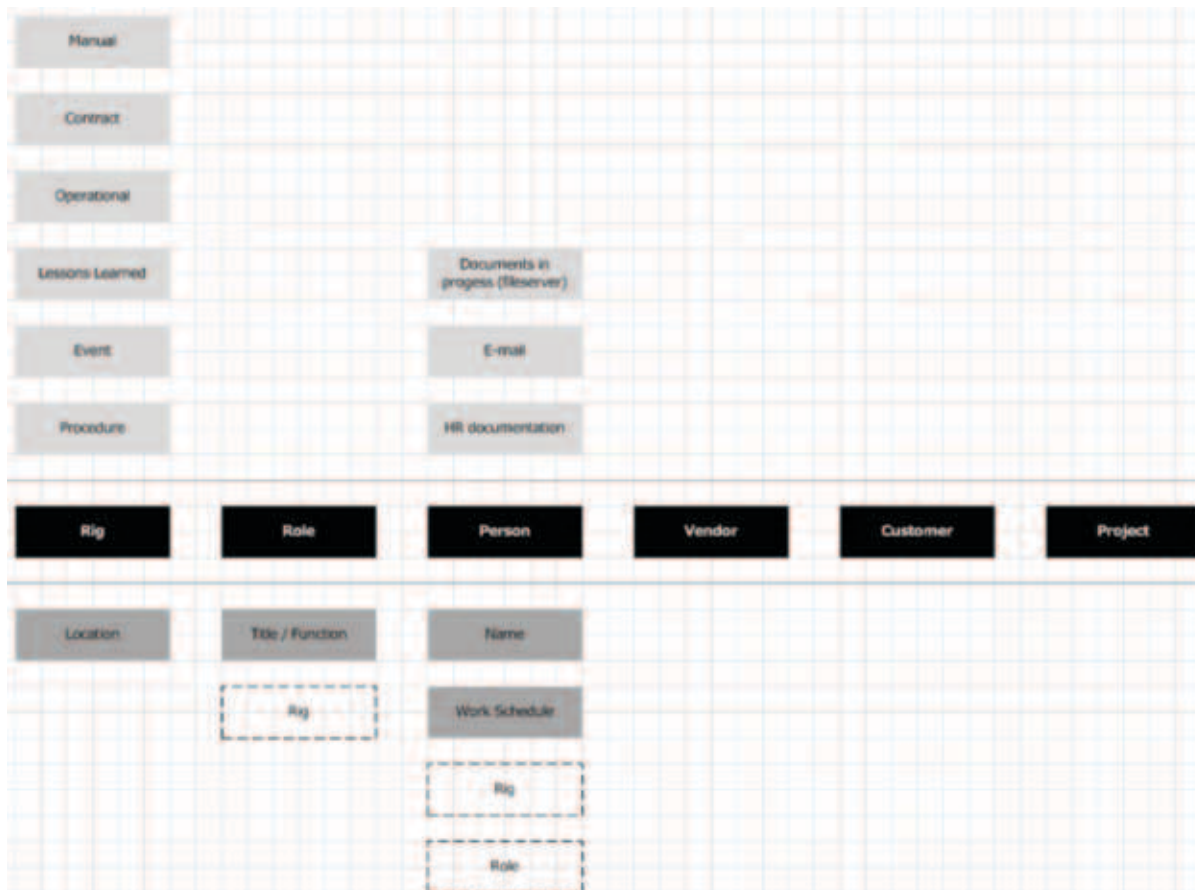
the entities, while the darker grey boxes below are metadata and keys linking the different entities.

Without an information model it is hard to know how your users think about their content and how they navigate it. By interviewing employees throughout the organization for whom you are creating a search solution you will gain insight in how to create the model and you can adapt your governance plan for search accordingly.

You will quickly find that no two businesses are alike and the navigation axes are very different from the out of the box refiners.

Once the content is structured we need to get it back out, or query it. Continue to Reason 3.

Reason 3: Advanced Query Capabilities

The advanced query capabilities of FAST for SharePoint covers several technical features listen in the comparison chart: advanced sorting, contextual search, tunable relevance, and multiple rank profiles. Many of these features are accessed via the FAST

Query Language (FQL). FQL is a query language providing advanced query capabilities against textual content, much like SQL allows you to query a relational database.

FQL enables fuzzy searches where you require words to be within a certain distance from each other or in a certain order, it allows search terms to be modified with lemmatization (expanding word forms in a linguistic fashion - eg. good-better-best), and you can boost or reduce the relevance score of items based on rules specific for your business.

Using FQL is not for the end-user, but it is a powerful tool IT Pros and developers can use when customizing or developing search applications and experiences.

FAST for SharePoint allows you to create dynamic search scopes, much like audiences on web parts, where you can filter or promote content for defined user roles or groups. As an example, out of the box Excel documents will be demoted for all users. If you have users who only work with Excel, you might want to create a specific rule for them, promoting Excel documents above anything else. Users in the marketing department might favor content produced by fellow colleagues, so you should boost content

created by employees in the same department as the user executing the search.

Creating these rules directly links to the work you do when analyzing the content, and over time you end up going in a circle with the content and the queries you need to perform on it.

Being able to turn the following business needs into queries is now within your reach:

- "I want to see all invoices, contracts and mail correspondence for customer X most relevant to me"

- "Sort products by largest gross margin, but also favor those who have been in inventory more than 6 months"

- "Find all documents where the words market and volatile appear in the same sentence"

Conclusion

Because it is now possible to analyze content during indexing, adding valuable metadata which will capture conceptual content and meaning from an otherwise unstructured collection of text, and then querying it in the manner the user expects, you are now writing search queries which target specific business needs, and not a general all-purpose search page.

I am not proclaiming the general search page we all know and love as dead, because it is a great starting off point, and indeed where most companies start their venture into more advanced search applications. But when you start to think outside the search box and add the power of FAST Search for SharePoint to your toolbox, you will have the power to create even better business solutions for your customers.

Hopefully I have managed to show how the technical features of FAST for SharePoint will allow you to create even better search solutions, and perhaps I have sparked some new ideas along the way. Creating the best search solutions for your customers is by no means an easy task: it requires planning, insight and a toolset to match, which you now have at your disposal within the realm of SharePoint 2010.

F ind all documents where the words market and volatile appear in the same sentence

This article is a finalist entry in the Aspiring Authors Competition 2011.

Vote for your favorite article online!

http://spm.to/26

HOW TO VOTE

Over the next pages, you will find the finalists as determined by the SharePoint Magazine jury.

Please read each of these entries and decide which author you think deserves to win.

The SharePoint community has always been great at utilizing social features. As such, we've decided to utilize a social feature, namely Facebook, to run the vote. It's as simple as this:

At the top and bottom of each finalist article is a 'Like this' button. For the article, or articles, you think deserves to win, click that button to cast your vote. You can vote for either a single or for multiple articles, but we only count one vote per person per article.

At the end of June 3, 2011, Central European time zone, we count the number of Likes for each article, and the article that has most often been liked will be the winner.

Sounds like a plan? Good, then get to it and help decide which author most deserves the grand prize!

READ THIS ARTICLE ONLINE

THREE MAIN REASONS WHY YOU SHOULD UPGRADE TO FAST FOR SHAREPOINT

BEST PRACTICES FOR SHAREPOINT GROUPS

A GUIDE TO LEAVING LOTUS NOTES AND MOVING TO MICROSOFT SHAREPOINT

SHAREPOINT 2010 BACKUP AND RECOVERY - CONFIGURING BACKUP

This mini-series of articles attempts to give you the nuts and bolts of backup configuration and performing it, as well as dealing with how to recover the backup. Obviously, the better backup and recovery is prepared, the less time you will spend restoring a SharePoint 2010 environment. And after all, the less time you business loses, the better it is.

I t is good practice to perform any type of farm backup into a local folder and only afterwards transfer the backup files to a network share or remote location.

Even before installing SharePoint 2010 it is good practice to deal with business continuity management - in other words: backup and recovery of SharePoint 2010 farms. Many things became easier in the newest release of Microsoft's composite collaboration platform, but certain manual configuration steps cannot be avoided.

Initial Backup Configuration

As mentioned before, there is no way around configuring manually (or at least verifying) some initial settings. First of all, you need to distinguish on what level you want to perform backups. Depending on this level, you must have different permissions to perform backup and recovery from the Central Administration:

- **Farm, Service Applications, Content Databases:** Local Administrator Group Member

- **Site collections, sites, lists, document libraries:** Farm Administrator Group Member

In addition, the Timer and SQL Service account must be granted "Full Control" permissions on any local folder used for backing up. Once you have configured these settings, you may proceed to the backing up SharePoint in a continuum.

Backing Up the Farm

SharePoint 2010 offers a high level of granularity: You can separately back up any object starting from the entire farm down to single lists. It is straightforward to choose the backup components you want to save for a later recovery. On the "Backup and Restore" section of the Central Administration (CA), you will find the same granularity. If you go for a farm backup, the before mentioned requirements hold. Moreover, the following services must be running at the time you are issuing the backup command from CA:

• Timer Service

• SharePoint Foundation Administration Service

For backing up from farm level downwards, "Perform farm backup" is the right starting point. It offers insight on whether there are running backups or restores, and it will let you choose the different backup components, such as the entire farm, single web applications, as well as shared service applications, such as the Managed Metadata Store or

the Secure Store Service.

More options can be chosen on the next page of the backup wizard: You can specify whether you want to run a full or differential backup and whether you want to back up only the configuration settings or also add the content databases. And, of course, you can also specify the backup folder.

It is good practice to perform any type of farm backup into a local folder and only afterwards transfer the backup files to a network share or remote location.

While you can back up both content and configuration data for your farm using CA and PowerShell (PS), you can only back up the farm's content databases using the SQL Server tools. The preferred tool for this operation is the SQL Server Management Studio (SSMS).

In order to be able to back up the content databases, you must have the **db_ backupoperator** role assigned to the user with which you are trying to perform the backup.

Backing Up Content Databases

Content databases are the heart of your SharePoint web applications. Using CA or PowerShell, you can backup entire web applications, in other words configuration settings plus content databases. Although these two methods allow for the full backup of single web applications, you can only back up the content databases using the before mentioned SSMS backup method.

If you opt to choose the CA approach, please note also that there is no way to generate a separate backup for configuration data and content databases. The generated backup files for a web application are self-contained. Again, choosing "Perform a backup" from CA is the way to go. The only option that should be changed is the selection of the desired web application and its corresponding backup folder.

The PowerShell cmdlet to perform the same task is straightforward to use: No matter on which granularity you would like to back up your farm, the cmdlet of choice is always

```
Backup-SPFarm -Directory
"path" -BackupMethod
"Full|Differential" -Item
```

Backup-SPFarm comes with a set of parameters, of which the most important are:

- **Directory**: Set the backup folder

- **BackupMethod**: Specify whether to run a full or differential backup

- **Item**: Specify the farm, web application or (shared) service application you want to backup

The most interesting parameter is Item. It lets you specify any kind of component, from the entire farm to a single web application to a shared service application. Consider Backup-SPFarm as your swiss army knife when it comes to backing up instantly using PowerShell.

You can review the status of running or finished jobs in CA, in the section "Backup and Restore" | "Check backup and restore status".

The report gives you an insight of the current jobs,

including the time, result, the person who started the job and a finish date for each backup component (in case it didn't fail). This is a great way to see at a glance where the backup failed. If one component cannot be backed up, the overview will show a corresponding error message, along with the details. This helps to easily identify backup or restore problems and track them to their root.

There is another way in order to get detailed insight into the backup status and check for detailed error messages and exceptions. In the directory you specify during the CA or PS setup of the backup configuration, at the end of the backup/restore operation you will find either spbackup.log or sprestore.log.

Backing Up Site Collection, Lists and Document Libraries

SharePoint offers also the possibility to back up entire site collections, lists and documents. These options can be found in CA, specifically in the section "Granular Backup". There are only a couple of mouse clicks that need to be performed in order to export an entire site collection: You simply select the site collection you want to export and specify the backup folder.

Requirements for this step include a running SharePoint Timer Service as well as there must not any backup be running already. The site collection will then be available on the file system as a single backup file, in the directory you specified for the backup. The preferred file extension is .bak.

While backing up on farm level, for different granularity you had to use always the Backup-SPFarm PowerShell cmdlet, for the granular backup it is a bit different. There are different cmdlets for backing up site collections and lists or document libraries. Backing up a site collection using PowerShell works using the following cmdlet and corresponding parameters:

```
Backup-SPSite -Identity
"Site Collection Name" -Path
"path"  [-UseSqlSnapshot]
[-NoSiteLock]
```

The Identity and Path parameters are straight forward. UseSqlSnapshot will create a read-only view of the current content database and use this one for restoring the content database. NoSiteLock causes the standard behaviour of setting the site collection to read only not to take effect. In other words: Your site collection will still be writable, i.e. modifiable by users. As you can imagine, this could possibly cause the currently backed up site collection not to be up-to-date at the end of the backup procedure.

Similarly, you can back up single sites, lists or document libraries:

```
Export-SPWeb -Identity "Site/
List/Library name" -Path
"path" [-IncludeUserSecurity]
[-GradualDelete]
[-IncludeVersions]
```

The Export-SPWeb cmdlet is the backup command with the most granularity. Using the IncludeUserSecurity parameter you can include full permissions of the list/library. GradualDelete is especially recommended for larger sites or lists. It will cause the site or list to be gradually deleted and prevents further access to it.

It is a very good strategy to use it in order to minimize the impact of content deletion on SharePoint and the underlying SQL server. If you want to remove a site or list and archive it, then

```
Export-SPWeb -GradualDelete
-IncludeUserSecurity
-IncludeVersions
```

is the command of choice.

Backing Up Log Files

Log files are good and important to have. But sometimes they are just loitering on different drives and growing very large. Hence, it makes sense to merge them for backup purposes and save them away as a single file. This can explicitly be done using

PowerShell:

```
Merge-SPLogFile -Path"path"
-Overwrite
```

This command will merge all diagnostic log files into a single log file (in the location you specify). "All" in this case means all diagnostic log files from each

> **Tip:**
>
> The default location for the Collect Usage Data Files is on the same partition where SharePoint is installed. Since they can grow very large, it is recommended to store them to another driver in order to achieve better performance.

server in the farm - hence this operation usually takes a notable amount of time.

In addition, using PowerShell it is also possible to copy single servers' diagnostic log files into a specified archive folder, using the standard Copy-Item cmdlet.

Conclusion

SharePoint Server 2010 offers a lot of functionality for backing up using different granularity levels. Whether you want to use Central Administration (preferrable for manual backups) or PowerShell, depens completely on your preferences: Most of the times all the operations are available using either approach.

In this first part of the Backup and Restore Introduction we introduced the initial configuration and setup of SharePoint 2010 backups. Moreover, we had a look at different backup methods using Central Administration, PowerShell or SQL Server tools and concluded this first part with backing up diagnostic and usage logs.

The next and last part of the series will put a focus on how to restore farms, databases and site collections, especially with PowerShell.

CUSTOM AUDITING IN SHAREPOINT 2010

WORKING WITH ULS LOGS AND EVENT LOGS

*T*he benefit of logging to the ULS log is that you can dump much more data there than you would normally want in the Windows event logs.

In a previous article in SharePoint Magazine, I wrote about using custom delegate controls to control access to pages in SharePoint. Although I did mention that this was not an entirely secure approach, there was some controversy about whether the technique was usable at all.

One participant in the ensuing discussion took the time to point out the weaknesses of the solution, and I thought it would be interesting to show how to solve many of the issues mentioned in that response.

The first problem related to auditing, so I though it made sense to start by showing how to add some custom auditing in SharePoint 2010.

I would like to point out that these articles are meant to show individual techniques and should not be used as stand-alone solutions in a production environment.

Only SharePoint 2010?

The logging framework in SharePoint 2007 was less than perfect. Simply put, you were often much better off writing your own logging framework than to use what you got from SharePoint.

Those days are now over, however, with the new logging framework in SharePoint 2010. The upgraded SPDiagnosticsService class provides, compared to SharePoint 2007, a very easy interface for logging

events and leave an audit trail.

As such, the examples shown in this article are targeted at SharePoint 2010 only.

ULS and Event Logging

Our goal for this article is to see how we can add events to either the ULS log or the Windows Event log. This is an important skill for SharePoint developers as it allows you to provide feedback to administrators and others about important or informative events in your code.

However, you also need to understand what these two logging destinations are and how best to utilize them.

SharePoint normally provides two types of logging types, the USL log and the Windows event logs.

Although you're certainly free to add additional custom logging functionality, we're not going to discuss that now.

The ULS log is what you get in the [SPRoot]\LOGS folder, and is often the first place you search for debugging problems with your solutions. These logs normally contain the bulk of the logging information provided by SharePoint.

The benefit of logging to the ULS log is that you can dump much more data there than you would normally want in the Windows event logs. The ULS log is also dedicated to SharePoint so you'll find only SharePoint information there.

The drawback of the ULS logs is that it is an additional log for administrators to monitor. Even with excellent tools like the ULS Log Viewer, administrators still need to monitor the log in addition to everything else they need to do.

> ULS Log Viewer is a free tool that can be downloaded from
>
> http://archive.msdn.microsoft.com/ULSViewer

If you do not have dedicated SharePoint administrators, you'll likely find that normal system administrators have more than enough to monitor and adding additional burdens to them may not be welcomed.

The other logging destination is the Windows event log, which you'll find on the server, usually viewable from Administrative tools. This is the monitoring and reporting facility that most administrators use to keep apprised of events on a system.

The benefit of the event logs is that it is an established form of reporting events. Administrators are used to working with the event viewer and there is a range of products designed to help monitor these logs already.

The drawback of the Windows event logs is the lack of detail. Granted, you can add as much as you want to the event logs, but chances are, you'll be very unpopular if you put hundreds of event log entries every hour, as you could easily do in the ULS logs.

So, which logging destination do you chose? Well, the good news is that you don't have to chose. You can have your cake and eat IT to.

In fact, you're probably best off by combining the two logging destinations. For detailed logging with massive amounts of data, use the ULS logs. However, for critical events that require the attention of an administrator, use the Windows event logs.

SharePoint Diagnostics Service

What's even better is that you don't need to change the way you log to switch between the two modes of logging. All of the functionality you need to write to the ULS log and the Windows event logs are exposed through the SharePoint diagnostic service.

The diagnostic service is responsible for all aspects of logging and monitoring in SharePoint. By utilizing that service, you don't need to know any of the internal dealings of working with Windows event logs or anything like that.

Instead, you simply ask the local SharePoint diagnostic service to write the events or traces that you want, and the service will take care of the rest for you. That includes making sure that wonderful new SharePoint 2010 feature, the correlation token, gets added to any event you add to the ULS logs so that it is easier for the administrators to find entries related to your event.

Solution Walkthrough

We'll start with one of the examples from the Delegate Control article mentioned earlier. To make it easy, let's just pick the first example, the one that redirect anonymous users to an error page if they try to access an application page. So, we'll start out with a delegate control with an onload method looking something like this:

```
protected override void
OnLoad(EventArgs e)
{
    if (Context.Request.
Url.PathAndQuery.IndexOf("_
layouts/", StringComparison.
InvariantCultureIgnoreCase)>0)
    {
        if (SPContext.Current.
Web.CurrentUser == null)
        {
            // Anonymous user,
prevent access
            SPUtility.
TransferToErrorPage("Anonymous
users have no access to this
```

```
page");
        }
    }
}
```

Now, what we want to do is to additionally log what has happened. Let's first just add the method call, which should be fairly simple, just before transferring to the error page:

```
LogToULS(string.Format("Anonymous
user attempted to access {0}.",
Context.Request.Url.ToString()));
// Anonymous user, prevent access
SPUtility.
TransferToErrorPage("Anonymous
users have no access to this
page");
```

Note that the WriteEvent method call also adds a ULS log entry.

The LogToULS method is deceptively simple, but also holds they keys to the proverbial kingdom. The simplicity shows the elegance of the SPDiagnosticsService.

```
private void LogToULS(string
message)
{
    SPDiagnosticsService
diagnosticsService =
SPDiagnosticsService.Local;
    SPDiagnosticsCategory
category = diagnosticsService.
Areas["SharePoint Foundation"].
Categories["General"];
    diagnosticsService.
WriteTrace(93, category,
TraceSeverity.High, message,
null);
}
```

This code really is all you need to write both to the ULS log and to the Windows event logs. Told you it was simple! Let's examine what goes on here.

```
SPDiagnosticsService
diagnosticsService =
SPDiagnosticsService.Local;
```

The first line gives us access to the local SharePoint diagnostics service. From this object, we have full access to do virtually anything we want, at least from a logging perspective. We can, although not show in this article, configure how the logging should happen, basically anything that you can do through the Diagnostic Logging configuration in Central Administration.

```
SPDiagnosticsCategory category
= diagnosticsService.
Areas["SharePoint Foundation"].
Categories["General"];
```

The next line is where we find the category for our log entry, and requires a bit of explaining, most easily done with a screenshot of the Diagnostic Logging configuration in Central Administration.
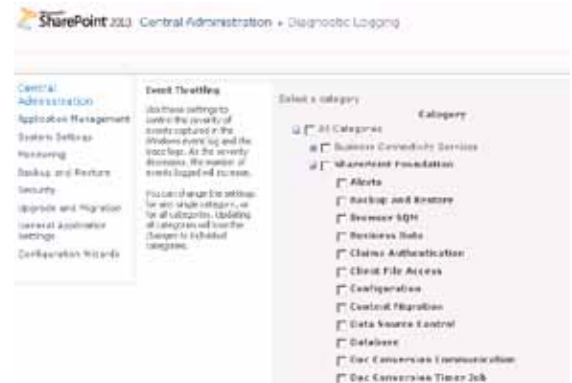
Categories are organized in areas. Areas are the upper most level shown in the list of in Event Throttling, like Business Connectivity Services and SharePoint Foundation shown in the image. Inside each area are one or more categories, and we need to pick the category where we want our ULS log entry to appear.

You can also create your own areas and categories freely too, to completely customize how your log entries are recorded. That, however, is another show.

The SPDiagnosticsService object conveniently exposes these areas and categories in two collections titled, you guessed it, Areas and Categories, thus explaining our retrieval of the SPDiagnosticsCategory object.

We'll need this object in the next line, so let's look at that.

```
diagnosticsService.WriteTrace(93,
```

```
category, TraceSeverity.High,
message, null);
```

— — — — — — — — — —

We're still utilizing the SPDiagnosticsService object we created earlier. The SPDiagnosticsService class also existed in SharePoint 2007, but what didn't exist was the two methods WriteTrace and WriteEvent. Now, with SharePoint 2010, we have those two methods, saving us tons of code and hardship.

The signature of the WriteTrace method is simple as well. We provide at least

• an ID, which is an arbitrary number we can decide ourselves

• the category we retrieved from the second line

• the severity of the low entry, defined by the TraceSeverity enumeration

• the message to be logged

In addition, we can provide additional data to be inserted into the message. This may be useful to enter dynamic data created in the logging method, but in this case, I've just sent a null parameter.

So, this really wasn't too hard, but working with the Windows event logs surely must be more complex, right? Wrong!

Try adding the following line to your method:

— — — — — — — — — —
```
diagnosticsService.WriteEvent(93,
category, EventSeverity.
Information, message, null);
```
— — — — — — — — — —

That's it! The same syntax, granted with an EventSeverity enumeration instead, and with a slightly different method name, and you're done. Easy as… Well, I never got the hang of pie, but feel free to think of something easy.

Testing

Now that we've set up this rather simplistic logging method, we can test it. Deploy your solution, activate it, and log in to your site as an anonymous user before trying to access any application page, such as the All Site Content page.

As shown in the previous article, you'll get an error message, but our interest is in what appears in the logs. Although you can open these log files to find your entry, I find using the ULS log viewer a much easier approach.

Your result may look something like this:

Note that the WriteEvent method call also adds a ULS log entry.

If you check your Windows event viewer, you may find something like this:

Now that you know how easily you can add logging support to your application, I'm sure your next project will include much better information to those poor administrators who must operate your solutions for years to come.

I also hope that this shows you how you can add auditing trails, and thus answer at least one of the criticisms raise after the previous DelegateControl article. I'll address others in future articles, so stay tuned :-)

Happy auditing!

*T*he default install has faults. There are no quotas enabled, and all data goes into one content database that continues to grow until it fills the drive.

10 STEPS TO SUCCESSFUL SHAREPOINT DEPLOYMENTS

By: Joel Oleson

A common word that keeps popping up around SharePoint deployments is "Governance," as if it will help you avoid chaos and have a more successful deployment. The answer is, when executed properly, it can. Governance consists of rules and guidelines for designing a service offering. Its goals aren't to shut down a deployment and make it take forever, but, rather, to find balance in user flexibility while providing for IT oversight. Here are 10 key steps to help you be successful in designing your SharePoint deployment.

Confront Reality

Understanding where your company is in its maturity of SharePoint can better help you understand the next steps, as well as the challenges your corporate culture will face. Confronting reality is something that can be done at any time during a deployment. Often, it isn't a greenfield deployment; there is already something in place, and that current solution may or may not be working. Why?

An assessment of your Intranet, collaborative platforms, file sharing platforms and usage scenarios will help you understand where to begin. It's time to wake up and see that there are better ways to do things, and you may need resources to accomplish this.

You will find that making any changes will affect the balance of empowerment for the business, and give up some control from IT. It may feel unnatural at first. Doing this with the out-of-the-box deployment often is where companies start with SharePoint. They find that giving the business site collections to create

projects, workspaces and team sites makes them very happy.

The balance can get out of control when the business is left with a default install. The default install has faults. There are no quotas enabled, and all data goes into one content database that continues to grow until it fills the drive. Auditing is off, versions aren't enabled and chaos can reign quite easily without some forethought about the answers to these questions. The newbie mistake is to decide to figure out many of these things later. Later comes too late, when the environment is down or, worse, never backed up. Again, it's something that by default isn't automatically configured. Backing up the drives isn't good enough. The data is in databases, and the binaries and development assets are on the disks, while the configuration is spread across the system. This might seem obvious to those running the system for awhile, but unfortunately it is a common mistake.

Create a Governance Plan

Before we can create a governance plan, we need to understand what governance is. I'm a fan of the definition from the Burton Group: "Governance uses people, process, technology, and policies to define a service, resolve ambiguity, and mitigate conflict within an organization." The governance plan does just that---it defines the service, roles, team, technology and the policies.

People – Think virtual teams. The roles for a SharePoint environment can be as simple as a Portal Admin and an IT Infrastructure Admin. This provides some level of delegation and empowerment for the business, while maintaining patch levels and optimizing administrative tasks by someone who has the appropriate skill set. The larger the enterprise, the more these tasks become divided into roles stemming from a development lifecycle. It may be an SDLC (Software Development Lifecycle) or an Operations framework like MOF 4.0, where a framework is laid out with staged deployment involving different roles--- the Dev team, the Test team, the Ops team, the Engineering team and the Service Manager, along with the Project Management Office. A support desk, along with communication functions and release management, can provide these teams with simple to highly-structured support, based on the requirements and complexity of the application and organization.

Process – The process for this service most often determines how the site or site collections live and die---it's about the lifecycle management of the unit of provisioning. Exchange supports mailboxes and SharePoint supports Site Collection as its most scalable unit, but, in some cases, the unit of provisioning actually is a site. The process is the system set up to support the provisioning process. Imagine it as a workflow from creation all the way through to the archive and deletion process. Who can create sites? Who approves them? How are they managed?

A great way to achieve stability and address cultural issues is to include Site Admin training as a prerequisite to owning a site or site collection. In the training session, you could include HR policies on security and risk associated with your information policies. Your SharePoint community will be happy they were told the rules ahead of time.

Technology – The technology is the platform. It's also what I like to call the "Buzzwords." In nearly every SharePoint marketing deck, you will find the SharePoint pie. This pie consists of buzzwords from Portals, web content management, records management, BI and others. The SharePoint Platform is plastic, so mold it to support the service you envision.

Policies – Customization policies will keep you out of trouble. Security policies are right up there, as well. You need to establish the rules of the game and learn how to enforce them. A customization policy might define who can use SharePoint designer, or, it might determine how you support custom development assets and how they are evaluated even before reaching your dev boxes.

Service – The service is what you're building. It's what helps you be consistent and achieve scale. The service definition will give you, in black and white, what everyone agreed that you would build and support.

Get an Exec Sponsor

Without a stakeholder who has a budget, your deployment is doomed from the start. You need the visibility and support of the business. At Microsoft, they are called shadow apps. The key stakeholder might be the director of HR, Marketing or Communications. It isn't always the CEO, or even a C-level executive. While it is great to be on their radar---and have the awesome visibility that goes with a spot on the radar screen, the day-to-day details are rarely discussed in the board room. The CIO's vision for information management and the ability to support the growth of the business is critical. The platform the CMO chooses to push the marketing message can either hurt or embrace your service. Vision is a key word.

Create the Dream Team

You don't need to hire an army. You can find people with the right skill sets right in your corporation. It also is extremely helpful to have the guidance of someone who has performed previous SharePoint deployments. Microsoft's SharePoint Deployment Planning Services provide the option of working with a skilled partner to get your service scoped. I can't over-emphasize the importance of training by a skilled SharePoint instructor, especially one who is a SharePoint MVP. There are many out there who have built instruction based on their deployment experience. While Microsoft's Official curriculum training may help you learn how to install, the insight of the instructor will provide the core lessons.

Build Services not Stuff

While a lot of Microsoft applications come with a simple wizard-based install, you would never just install Active Directory or Exchange and then hand over the keys to someone. It's the same with SharePoint---you need to design a service around it. You need to decide what you're providing and how you're providing it. This service-based approach will help you to scale, and set the expectations of the business. It's an approach that is mandatory to achieve the core requirements of the business and IT. Balance is essential to success, and the only way to achieve it is to scope the service and roll it out in a phased approach as the service delivery team can handle the rate of change.

Define Clear Policies and Standards

The assembly line was built on the idea of standardization. "You can have any color car you want, as long as it's black," Henry Ford said. While automakers have come a long way since then, standardization is what allowed them to support high demands and keep their costs low. In IT, the commodity service of SharePoint needs to be very similar. The service provides a consistent quota, template, and provisioning and de-provisioning processes. The business users can expect a consistent service, know what they're getting and adjust their needs around it. You may find off the shelf tools such as the Quest Site Administrator tool (http://www.quest.com/sharepoint) or the codeplex sp configurator tool (http://www.codeplex.com/

spconfigurator) can help you set and keep your auditing policy settings consistent. Out of the box there are challenges for turning on settings across large numbers of sites to capture who changed or deleted a document, settings not enabled by default.

This is not to say that a custom application-based service can't be successful. It can be very successful when similar principals provided as policies are adhered to. Customization policies, for example, may require that all code introduced into the environment be rolled up in a solution package. It may require that third party software have support and maintenance agreements to avoid situations where problematic code has no developer. Within an organization, it may require all code introduced into the SharePoint environment to be supported not by an individual, but by a development team associated with a division or business unit. You don't want to be stuck supporting an application where the key and only developer just left the company.

Invest in a Scalable Information Architecture

The capacity boundaries of lists, site collections, sites and so on may quickly be passed on as things that are only of concern to IT. Think again. Unfortunately, the reality of the scalability of lists is a somewhat common issue. This issue is ultimately escalated to IT, but it could have been prevented by a bit of end user training in the use of folders and custom views.

Web Applications – These are good for memory isolation and department level applications in a multi-tenant environment. You do want to limit the use of these objects as they require a lot of memory.

Site Collections – The most scalable object in SharePoint is the site collection. It is the most common unit in a collaboration environment, and is automatically enforced with my sites. This is the rollup of ownership, permissions and galleries, yet is the smallest unit of quota.

Sites – While site collections obviously are collections of sites, they can contain more diverse sites. They are useful for breaking up content and often are used in delegation of an internet site or Intranet portal. They can be useful for separating one project from another as they each have a separate home page with web parts and lists.

Discovery is an important part of any Intranet SharePoint deployment. Navigation, site directories and cross-site navigation can help make content more

The capacity boundaries of lists, site collections, sites and so on may quickly be passed on as things that are only of concern to IT. Think again.

consumable. Users definitely will be happier when they can actually find things.

Don't forget Change Management

Running SharePoint on a single box is a challenge. The biggest mistake a newbie can make is to put all the eggs in that one basket and then forget about it. What happens when someone needs a webpart? A simple rollout can take down the environment due to a memory leak. Even a service pack can put the environment at risk. You must have an environment where these issues can be fleshed out. The more complex the environment, the more like environments are required: development teams need a dev environment and IT teams need a preproduction evaluation environment. What about restores? What about test? With virtual environments, these can quickly be built up and torn down to perform validation, or they might exist as long as work is being done on the development projects. The key here is not only to stage the deployment effect of a software lifecycle, but also to manage change and mitigate risk. IT is working on evaluating Service Pack 2 and the dev team is working on the latest solution. You don't want them both to go out at the same time, because any issue will result in a finger-pointing and yelling match. No one wins. Stability comes from managing risk.

Change control dictates that changes are rolled out and validated at each stage, and production changes happen during a maintenance window where usage is brought to a minimum and communication is clear about what's going on. IT is happier, Development is happier and the business reaps the benefits of high availability. The change management process can involve a change management board or a release manager, or, it can be as simple as a SharePoint list tracking changes rolled out and validated by the infrastructure. A note of caution: make sure your key steps to recover a deployment, along with the change management list with the package's deployment, are not found only in the deployment you're trying to recover. Various straightforward ways exist to accomplish this beyond a client with offline capabilities.

For example, a development environment is set up, code is introduced by the business units and the policies are established. Tthe code is wrapped in solution packages (.WSP), tested with standard unit tests, including one for memory leaks using SPDisposeCheck. Code introduced goes through a staged deployment process and is stored in TFS

with source control and a change process. All this requires more resources, and that's where the tradeoffs exist. Are you building high value applications on SharePoint or are you designing an out-of-the-box service with the concept of a commodity or utility in mind. The commodity out-of –he-box design may not include just the out-of-the-box code, but also may have features benefitting everyone who went through full scale rigorous performance testing. It's about tradeoffs.

Adoption is What Counts

You could create the most fabulous, rock solid SharePoint deployment but, if no one uses it, your efforts were wasted. In the section above on confronting reality, we mentioned that you need to understand where the business is, and what other platforms are available. You can't force feed the business, but you can lead it to the solution through training. They likely will be very happy to be involved in the master page acceptance and will provide feedback on the navigation. While they may not understand the challenges of deciding whether the service should provide sites or site collections, they may be able to tell you which of their requirements can be impacted by that decision.

Adoption doesn't end after deployment. Care and feeding are required throughout the lifecycle of the environment. SharePoint deployments don't need to be stagnant. They can evolve along with the skills of the deployment team.

Keep it Simple

Overly complex and over-structured deployments can bring a deployment to a halt. In all of this guidance, it may sound like a ton of overhead is required. In reality, it's more about having insight and using that insight to provide flexibility, and providing clear boundaries so your users can achieve scale and build the solutions they are so interested in using.

SharePoint is a lights-on experience; not everything needs to be enabled from day one. All of the functionality from forms allows workflows, BI dashboards and Excel services to wait as users figure out how to create and manage a list. They can learn how search works, and emphasis can be placed on making it work. Relevance is something that easily can be managed with some focus on what users are looking for, as well as paying attention to keywords and placement on the portal in relation to what they need.

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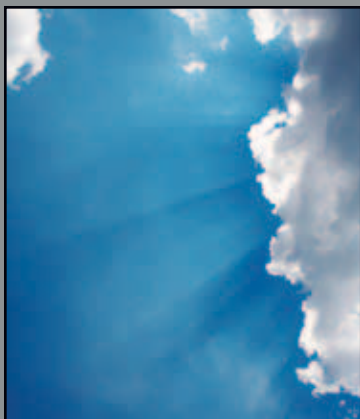
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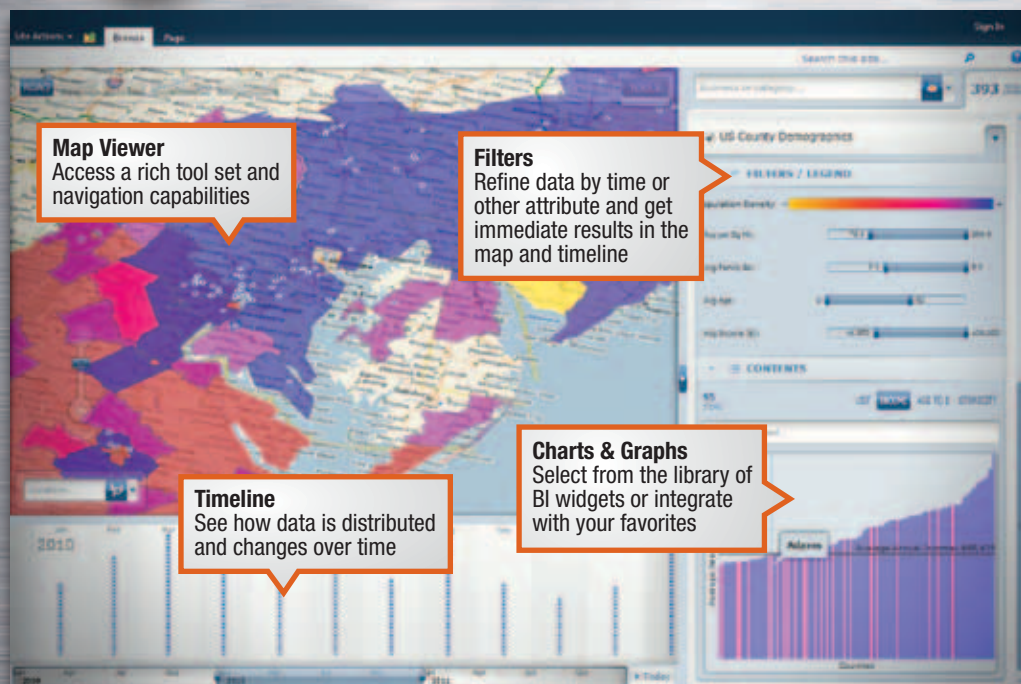
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