Five Keys to Building Better SharePoint Sites

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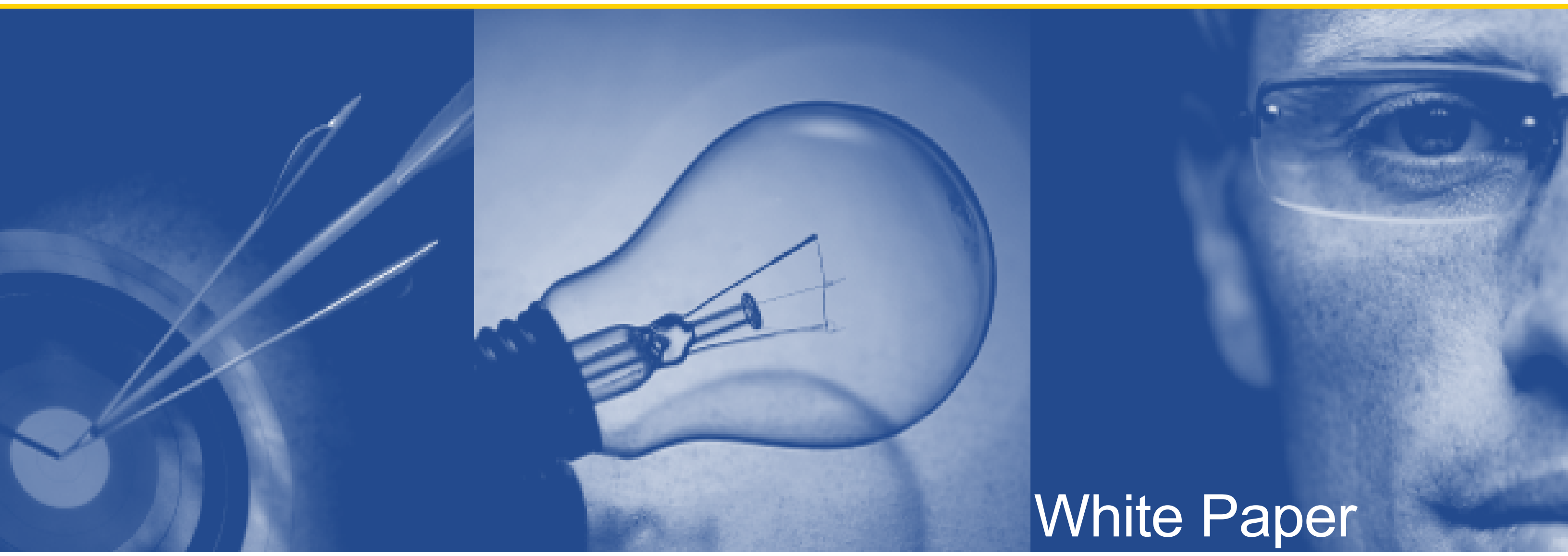

White Paper

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INTRODUCTION

SharePoint is an excellent collaboration platform out of the box, with the added promise of allowing organizations to build business applications on its foundation. In fact, many organizations are thinking beyond using SharePoint just as a document repository and a place for team sites. They are considering (and using) SharePoint for:

- Hosting simple interfaces for their business applications
- Re-platforming applications that are based on aging technologies
- Building new applications as alternatives to .NET development
- Doing advanced project management portals and other core sites
- Pushing the collaboration envelope well beyond traditional methods

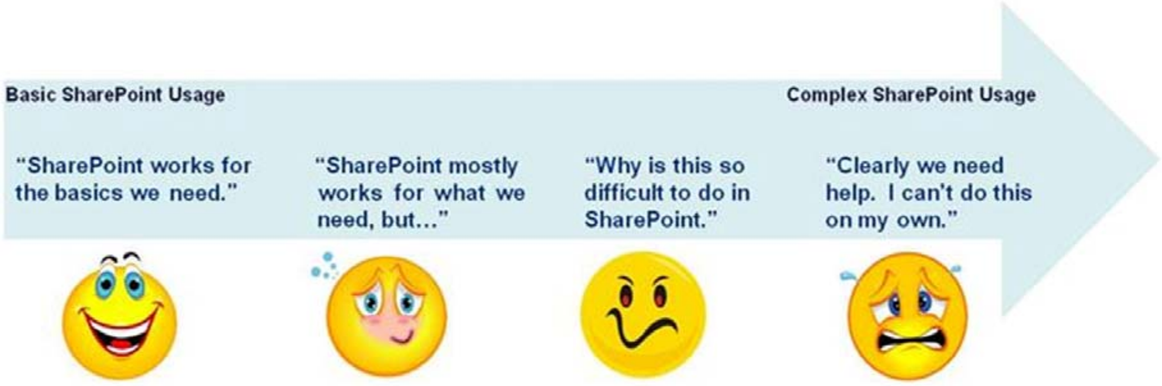
But using SharePoint beyond its out-of-the-box capabilities to create complex applications can be tedious, cost-prohibitive, time-consuming and, for some, even impossible. To deliver on the promise of SharePoint application development, most organizations are forced to rely on custom coding, with its inherent learning curve, costs and project delays. As long as SharePoint application development is dependent on custom coding, SharePoint cannot be the low-cost platform for rapid application creation that organizations envisioned when they invested in it.

A core challenge for many organizations adopting SharePoint is that even basic development tasks can require a major investment in time and resources. Once SharePoint is entrenched in an organization, and its usage requirements become more complex, much more work must be devoted to satisfying those requirements.

This paper will first explain how frustrations arise as usage requirements become more complex, then provide guidance to help you address these frustrations.

THE SHAREPOINT FRUSTRATION PROGRESSION

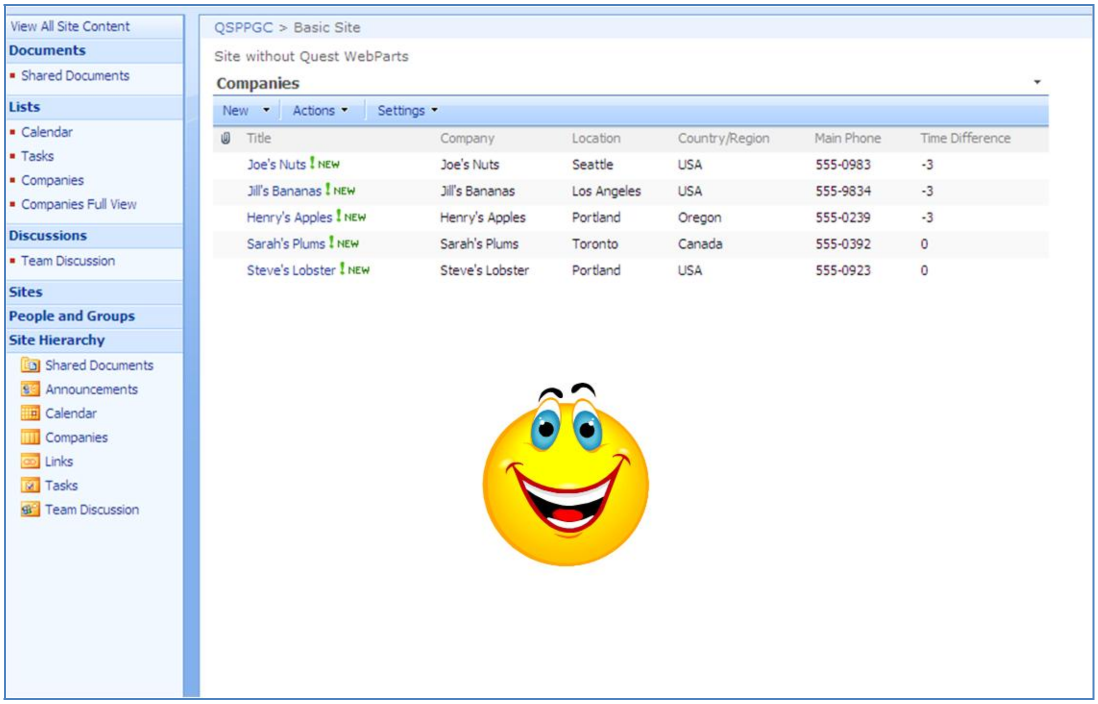
The typical progression in frustration as SharePoint usage and complexity grows can look something like this:


Basic SharePoint Usage
Complex SharePoint Usage
"SharePoint works for the basics we need."
"SharePoint mostly works for what we need, but…"
"Why is this so difficult to do in SharePoint."
"Clearly we need help. I can't do this on my own."

Unlocking the full potential of SharePoint may not mean creating a customer relationship management (CRM) system, help desk application or project management portal for your organization. It might be simply combining information to improve efficiency of daily tasks so that anybody can take advantage of it. Complex SharePoint usage can include seemingly simple tasks, such as:

- Enhancing, combining and viewing information
- Rolling up multiple lists into a report or a 3-D chart
- Creating a hierarchical list view
- Modifying information within lists across sites
- Copying or moving documents between document libraries
- Creating advanced forms with tabs
- Improving the flow of actions in an application
- Combining SharePoint data and external data into sites

Take the basic example below. This site was built in about 15 minutes without any additional Web Parts or coding. The result is a useful site for file sharing and basic collaboration, and may be all an organization needs initially.



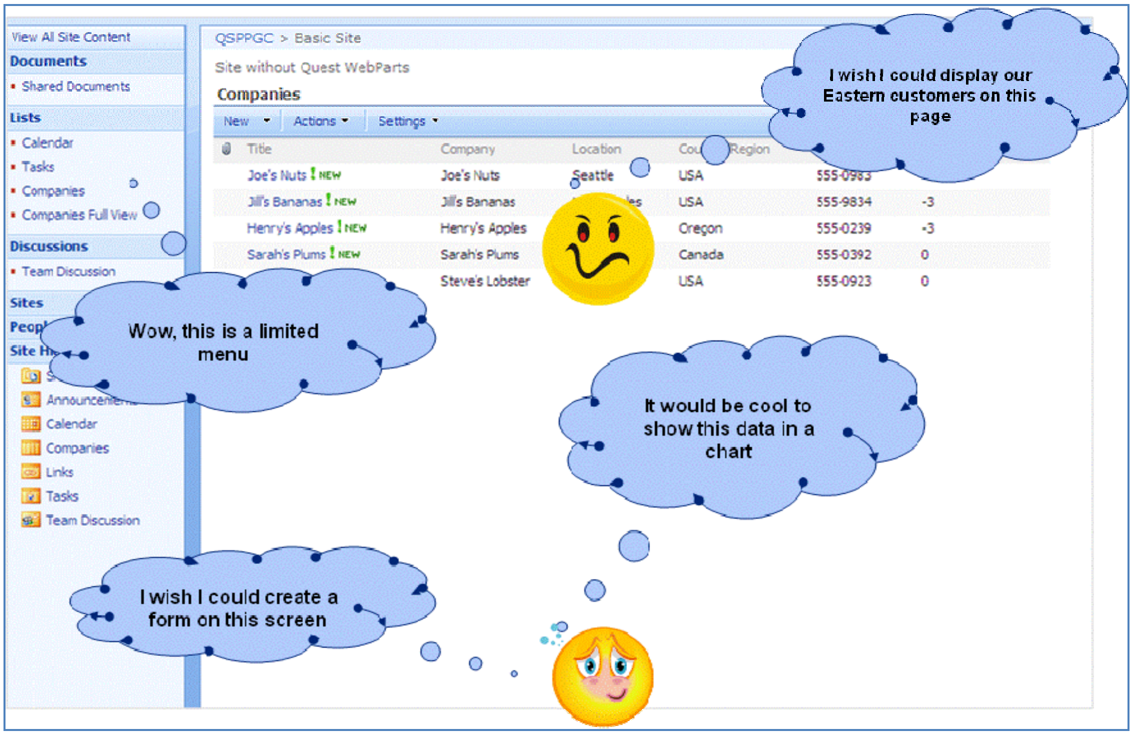
QSPPGC > Basic Site

Site without Quest WebParts

Companies

Title	Company	Location	Country/Region	Main Phone	Time Difference
Joe's Nuts ! NEW	Joe's Nuts	Seattle	USA	555-0983	-3
Jill's Bananas ! NEW	Jill's Bananas	Los Angeles	USA	555-9834	-3
Henry's Apples ! NEW	Henry's Apples	Portland	Oregon	555-0239	-3
Sarah's Plums ! NEW	Sarah's Plums	Toronto	Canada	555-0392	0
Steve's Lobster ! NEW	Steve's Lobster	Portland	USA	555-0923	0

But satisfaction can quickly lead to frustration as usage and demand for complexity grows.



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	Steve's Lobster		USA	555-0923	0

You can eliminate this frustration by following five key guidelines for building better SharePoint sites, with more speed and simplicity than you ever imagined. These five keys will help you unlock the full value of SharePoint for your organization to get the most out of your SharePoint investment and provide a richer user experience for everyone. The results will be that:

- **IT can** deliver SharePoint as a service to the organization
- **Business owners** get as much as they need from SharePoint and can use it as a reliable tool to efficiently manage projects
- **Developers** deliver value of SharePoint faster, then can focus on higher-end coding (rather than tedious SharePoint tweaks)

Key 1: Leverage Web Parts Wherever Possible

Out of the box, Microsoft has delivered a SharePoint framework that enables anyone to add Web Parts, build custom features and make the platform even more valuable. According to MSDN, ASP.NET Web Parts compose an integrated set of controls for creating web sites that enable end users to modify the content, appearance, and behavior of web pages directly in a browser. For our discussion in this paper, Web Parts are controls for creating and modifying SharePoint sites.

Microsoft's Library of Web Parts includes:

- List views
- List forms
- Panel menus
- Document libraries
- Wikis
- Blogs
- Contacts
- DataViewer
- Calendars

However, each of these Web Parts is only a piece of the puzzle and each comes with caveats. One good example of this is the native discussion Web Part ,which does not track discussions intuitively and often introduces more confusion than help.

Each web part has both the data and the presentation layer bound to the information that it is displaying, which will not allow for a combination of data from multiple lists into a single view. What is commonly known as a "parent-child" relationship is not possible in this locked-down dynamic.

The Case for Additional Web Parts

Many organizations will build Web Parts to expand SharePoint beyond its native capabilities. In fact, Microsoft encourages the use of custom developed Web Parts for exactly this purpose, even viewing them as part of the general platform.

Beyond Microsoft's Web Parts, there are many others available in the marketplace. This includes one-off versions developed in-house, those available free on sites like codeplex or www.sharepointforall.com, and those sold by third-party vendors that offer support and upgrades for these commercial offerings.

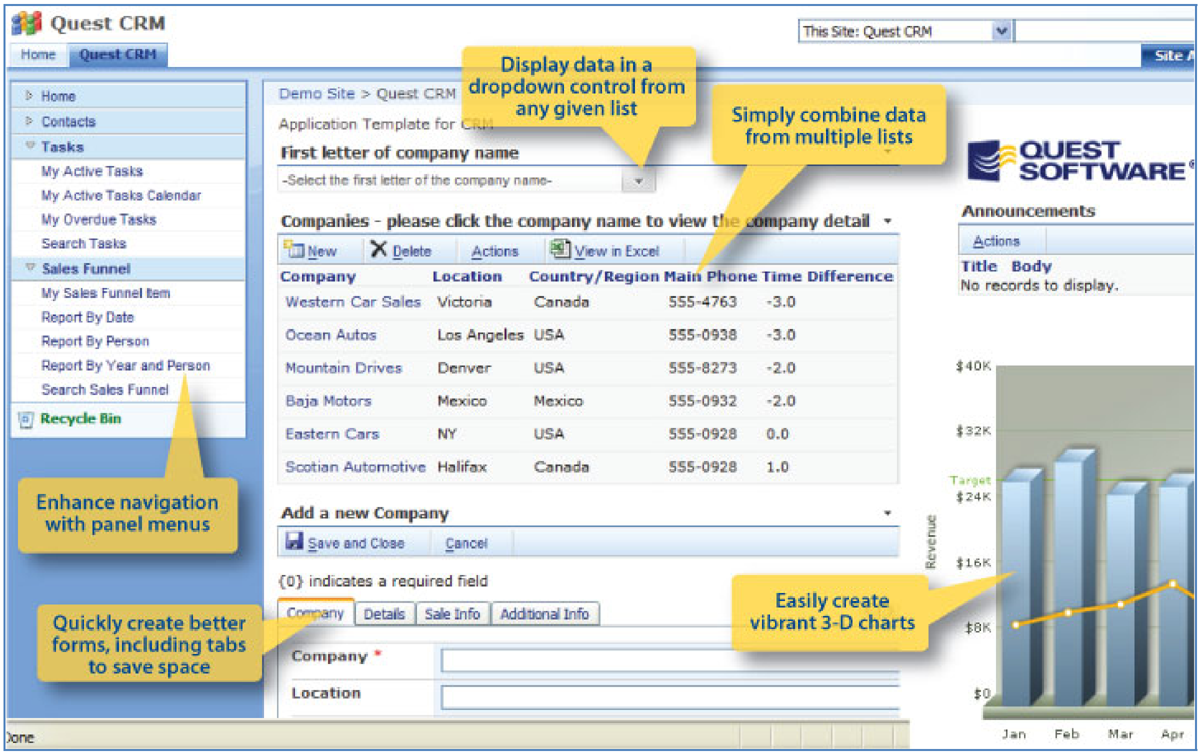
- Web Parts tip: Not all Web Parts are created equal! Some are high-quality, while others aren't worth a second glance. Each should be evaluated on its own merit. For serious production environments, it's crucial to consider quality and supportability.
- Web Parts tip: When building, buying or downloading web parts, ensure that they have been designed to support the SharePoint Object Model.

While you can get some Web Parts from various sources, it often makes sense to use a combined set of them to get more from your application. That's because many of the elements and design parameters will be the same from Web Part to Web Part, and they may even be integrated with one another and designed to work in tandem.

Quickly Unlocking SharePoint’s Full Potential

Quest Web Parts for SharePoint allow your organization to reap all the benefits of SharePoint by enabling anyone to quickly become an effective SharePoint application designer. These Web Parts cover core areas that make up most of what organizations typically need to build SharePoint sites. They help perform the tedious and frustrating tasks that must occur before anyone even gets to application and business logic.

Earlier in this document, we showed a basic SharePoint site (see page 3). In the same amount of time that site was created—about 15 minutes—we leveraged Quest Web Parts to create this site:



First letter of company name

-Select the first letter of the company name-

Companies - please click the company name to view the company detail

Company	Location	Country/Region	Main Phone	Time Difference
Western Car Sales	Victoria	Canada	555-4763	-3.0
Ocean Autos	Los Angeles	USA	555-0938	-3.0
Mountain Drives	Denver	USA	555-8273	-2.0
Baja Motors	Mexico	Mexico	555-0932	-2.0
Eastern Cars	NY	USA	555-0928	0.0
Scotian Automotive	Halifax	Canada	555-0928	1.0

Announcements

Title Body
No records to display.

Add a new Company

(0) indicates a required field

Company *

Location

Display data in a dropdown control from any given list

Simply combine data from multiple lists

Enhance navigation with panel menus

Quickly create better forms, including tabs to save space

Easily create vibrant 3-D charts

Notice the dramatic change in what’s possible in such a short amount of time. The power of these Web Parts increases your organization’s ability to deliver SharePoint as a service and improves the business owner’s satisfaction level (with having all data in one place). And this site was built without coding! The user-friendly Web Parts enables power users, business analysts and developers to make changes like this and other SharePoint enhancements on the fly.

The Quest Web Parts solution includes 18 Web Parts, three application templates, computer-based training, free trial downloads of industry-leading workflow software, and more.

Let’s take a closer look at them based on what your organization wants to do.

1. "I just want to combine and enhance information in SharePoint."

The following Quest Web Parts will help you enhance, combine and view information with ease.

QUEST WEB PART	KEY CAPABILITY
qListView	Allows you to easily combine data from multiple lists, even across sites, site collections and Web applications
qChartView	Allows you to create compelling 2-D or 3-D charts with information from multiple lists, even lists in different sites, site collections and Web applications
qCalendarView	Allows you to combine all your calendars into one view, including data from non-calendar lists
qExcelView	Allows you to view data in Microsoft Excel, based on criteria passed from qListView, even when that data is not shown in the qListView
qDiscussionView	Allows you to view the topic and responses of multiple discussion lists in one tree view and preview the selected item in a preview panel

2. "I want to enhance the user interface and develop applications."

The following Quest Web Parts help you to rapidly build real applications in SharePoint.

QUEST WEB PART	KEY CAPABILITY
qListForm	Provides a more advanced and capable list form, including functionality for separating form into tabs and creating space
qSelector	Displays data from a SharePoint list in a drop-down control
qMultiSelector	Allows you to view master-detail data in multiple selectors
qItemDisplay	Allows you to view a single item that has been selected in the qSelector, qListView or qListForm
qPanelMenu	Allows you to have a collapsible and hierarchical panel menu for better navigation
qCascadingMenu	Provides a hierarchical menu system, letting you create complex menus that occupy minimum screen real estate
qCaptionDisplay	Displays a message from a centralized SharePoint list, which allows you to maintain the content of the message easily
qHelpLink	Facilitates linking to a help file for your application
qPageRedirector	Allows you to redirect a user to a specific page based on the mapping specified in the page redirector list

3. "I want to use SharePoint to front-end my external data, and write back to the external databases from SharePoint."

The following Quest Web Parts enable easy data integration, including read/write capability, even in WSS. It's true.

QUEST WEB PART	KEY CAPABILITY
qSiListView	Displays data from your external data source in a grid and allows you to execute some actions on the data
qSiListForm	Allows you to create, view and edit your external data in a form
qSiChartView	Allows you to display your external data in a compelling 2-D or 3-D charts
qSiSelector	Allows you to display your external data in a dropdown control

The functionality provided in these 18 Web Parts is essential for getting the most from your SharePoint investment. You'd think most of it would natively come with SharePoint, but it doesn't. You might be able to create and design many of these elements using advanced tools such as SharePoint Designer and Visual Studio, but the time required to do so can be prohibitive and these design tools are not for novice users.

What about Visual Studio and SharePoint Designer?

Microsoft's SharePoint Designer, Visual Studio and Quest Web Parts are used for different purposes and they complement each other. **Visual Studio is used by developers** to create web parts or complex, customized workflows. **SharePoint Designer is used by developers** to customize SharePoint sites, implement pre-configured workflows through a wizard, and to create custom reports. Quest Web Parts for SharePoint enables anyone to become a SharePoint application designer quickly, effectively and successfully.

KEY 2: USE SIMPLER DEVELOPMENT INTERFACES

While it would be nice to have a team of .Net developers with SharePoint experience to respond to the requirements of every SharePoint user in an organization, that's not reality. In fact, finding these scarce resources can be difficult and potentially costly.

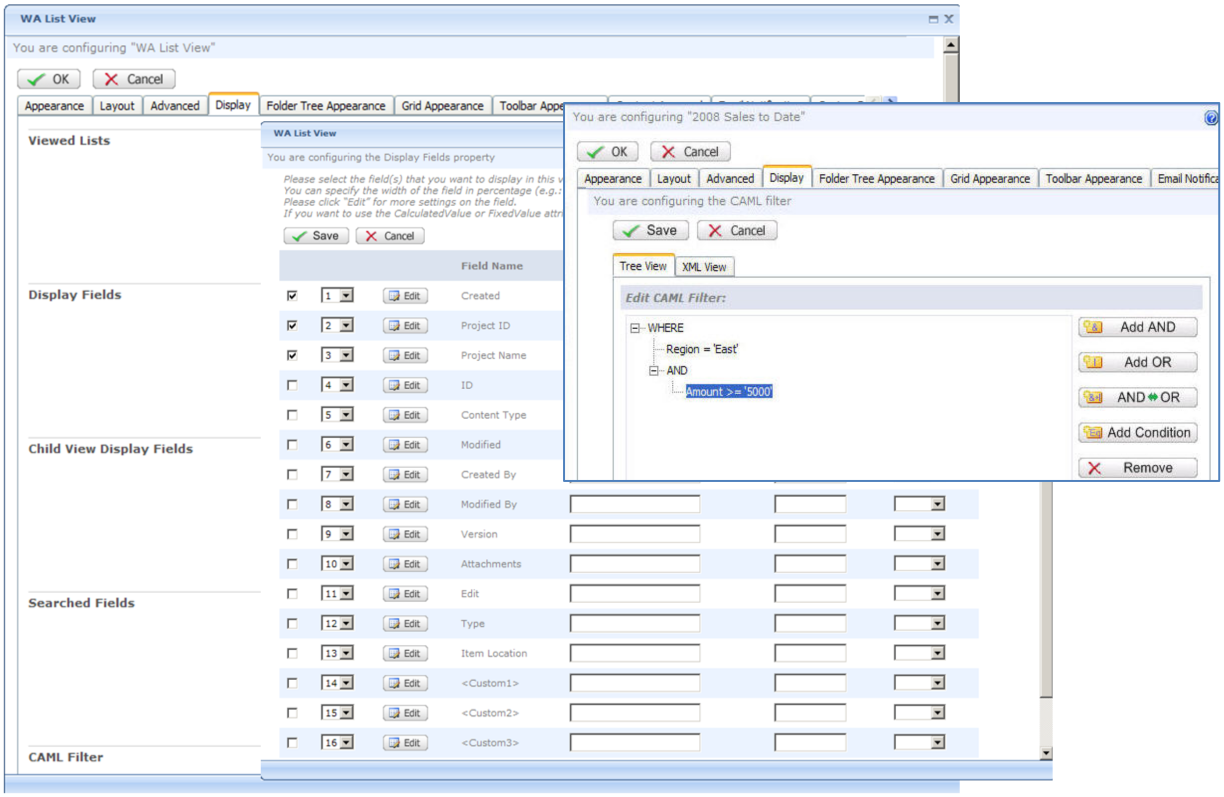
SharePoint administrators, business analysts and power users will encounter a SharePoint limitation that "should be a quick fix for the dev team." But changes that require custom development are rarely quick and often make your current environment more complex. And extensive changes involving custom coding pose potential risk over time, as application requirements change. If the original developer doesn't remain on the project, it could create costly, time-consuming re-work, degradation in overall quality and questions about supportability.

Configure Rather Than Code

By removing the core challenges of code creation and complex data integration, Quest Web Parts radically simplifies the approach to SharePoint application development. By leveraging this unique, business-driven configuration technology built into every Quest Web Part, you will find yourself performing design tasks you never thought possible, in a fraction of time required by other Web Parts. In fact, the Quest Web Parts embedded configuration tool, ezEdit, allows users to configure rather than code, and reduces the time required to build applications by up to 80 percent.

ezEdit allows you to:

- Move beyond the properties page with a built-in editor
- Make necessary large-scale changes to a Quest Web Part through an intuitive interface
- Skip XML, when desired
- Simplify custom actions, BDC-like capabilities and CAML without the up-front pain
- Make changes and updates with an immediate view of what has been done



You are configuring "WA List View"

You are configuring the Display Fields property

Please select the field(s) that you want to display in this v
You can specify the width of the field in percentage (e.g.:
Please click "Edit" for more settings on the field.
If you want to use the CalculatedValue or FixedValue attr

			Field Name
☑	1	Edit	Created
☑	2	Edit	Project ID
☑	3	Edit	Project Name
□	4	Edit	ID
□	5	Edit	Content Type
□	6	Edit	Modified
□	7	Edit	Created By
□	8	Edit	Modified By
□	9	Edit	Version
□	10	Edit	Attachments
□	11	Edit	Edit
□	12	Edit	Type
□	13	Edit	Item Location
□	14	Edit	<Custom1>
□	15	Edit	<Custom2>
□	16	Edit	<Custom3>

You are configuring "2008 Sales to Date"

You are configuring the CAML filter

Edit CAML Filter:

```
⊟ WHERE
    Region = 'East'
  ⊟ AND
      Amount >= '5000'
```

Figure 1: Quest's ezEdit configuration interface radically simplifies Quest Web Part configuration, allowing non-developers to quickly and easily create menus, dashboards, charts and more. For the developer, ezEdit accelerates tedious tasks, but also exposes the code in cases where that is preferred.

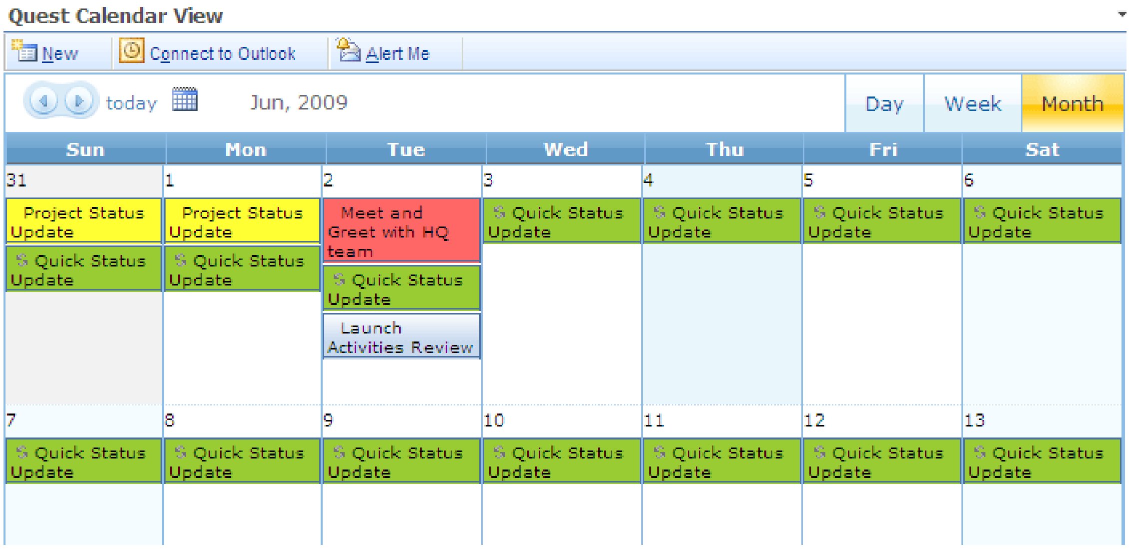
KEY 3: BUILD UPON THE STRENGTHS OF SHAREPOINT

SharePoint is about data, and using that data in new and exciting ways is what you want to do with your SharePoint environment. When you restrict yourself to the native Web Parts, you limit what you can do with the core of SharePoint, namely the data.

All of the data in SharePoint is stored in a list. Document libraries, calendars, wikis and even contacts are all simply variations of a list. All of these lists have a particular display and value for the end user when they are created. As time goes on, however, it often makes sense to utilize this data throughout the platform and beyond the natural boundaries of a list.

One of the biggest strengths of SharePoint is that the data within a list or library can be normalized using features such as Content Types, Lookup and required fields. Additionally, SharePoint can then front-end this data with an InfoPath form, which may require some level of coding and an understanding about the XML that is used behind this data.

Quest Web Parts help you to enhance these basic SharePoint strengths by allowing you to add a number of components. With the qCalendarView, for example, you can take multiple calendars and even non-calendar data and roll them into a single view. No longer will you be attempting to cobble together multiple calendars and keep all of this data up to date manually.



Sun	Mon	Tue	Wed	Thu	Fri	Sat
31 Project Status Update Quick Status Update	1 Project Status Update Quick Status Update	2 Meet and Greet with HQ team Quick Status Update Launch Activities Review	3 Quick Status Update	4 Quick Status Update	5 Quick Status Update	6 Quick Status Update
7 Quick Status Update	8 Quick Status Update	9 Quick Status Update	10 Quick Status Update	11 Quick Status Update	12 Quick Status Update	13 Quick Status Update

Figure 2: Calendar created by Quest Web Part qCalendarView.

InfoPath, with all its strengths, does not allow you to display data across multiple tabs. This need is real for most organizations and has traditionally been filled by a developer creating an ASP.Net form. Quest Web Parts provide the alternative to custom development. With Quest Web Parts, the end user, business analyst or even developer can consolidate data, create a place to enter additional data, and update it as needed across those multiple locations, without coding. This building block of application development without coding allows you to present any data—such as that related to the help desk, human resources and customer relationship management—on the fly.

KEY 4: STOP WORRYING ABOUT WHERE THE DATA LIVES

We consume new data sources at a furious rate. Having to worry about collecting the data into one SharePoint list is an inefficient use of time and resources. So don't worry about it. Leave the data where it is as long as that makes sense for your organization. Tie it all together nicely into a SharePoint dashboard or other mash up

Quest Web Parts offer two effective methods to make you forget about where the data resides. The qListView can combine list data from multiple sites, and even between sites, and it's fairly straightforward to use and understand.

So that only leaves the harder question of how to gather external data from databases such as SQL, Oracle and SAP.

One method naturally is to use the Business Data Catalog (BDC), but the BDC is available only in Microsoft Office SharePoint Server and is effectively read-only. In addition, for organizations getting by with WSS, the BDC isn't even an option and the limitation of using SharePoint data can only stifle SharePoint adoption. Consider the fact that there is a small cottage industry on how to use the BDC, a negative indicator for something that should be easy! You can also view external data in SharePoint using the Data Viewer Web Part. And with patience, you can create a data view that you read and write to, but the effort is significant, especially when you are first trying this process out. In the end, many developers get discouraged with the time and effort required to connect to even a simple database via BDC.

Quest's ezEdit interface is part of the SI Web Parts as well. While it may represent a step beyond what you'd have to do with native SharePoint Web Parts, the ability to view, read and write data to and from external systems with little-to-no development completely leapfrogs the capabilities of the native tools. The Quest SI Web Parts simplify the process of connecting to external data and bringing it into SharePoint. And besides bringing in the data, you can use that data, edit it, chart it and create meaningful applications.

The result is much greater efficiency, gained by eliminating the need to deploy a different application interface for every CRM, ERP or database system that your organization has purchased and developed. Plus, users across your organization can easily adjust to new applications because they're leveraging the familiar SharePoint interface. This, of course, reduces desktop management and user training costs while maximizing your investment in SharePoint.

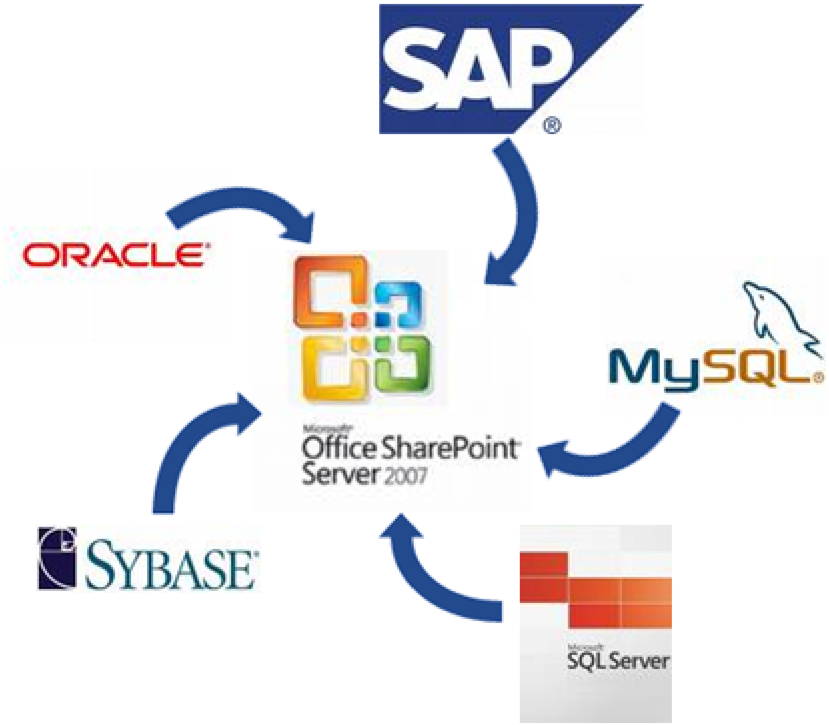


Figure 3: The Quest SI Web Parts simplify the process of connecting to external data and bringing it into SharePoint. And besides bringing in the data, you can use that data, edit it, chart it and create meaningful applications.

KEY 5: DON'T REINVENT THE WHEEL

Your organization is no doubt trying to be more efficient and get more from its existing investments. This certainly holds true for IT when it comes to SharePoint. There is little value in building from scratch if rich templates are available to help streamline application development. Look for these! There are many examples, including:

- Microsoft's Fab 40 http://technet.microsoft.com/en-us/windowsserver/sharepoint/bb407286.aspx: Here you will find basic free SharePoint templates to use for functions such as the help desk, inventory tracking and call centers. And since all templates can consume other Web Parts, you can enhance these with Quest Web Parts
- Many organization have connectors for Quest Web Parts or applications they have already created using Quest Web Parts that you can leverage. http://www.quest.com/web-parts-for-sharepoint/partners.aspx
- Three templates in Quest Web Parts for SharePoint offering: Templates for CRM, help desk and project management teams will get you off to a fast start.

CONCLUSION

SharePoint is an excellent collaboration platform environment out of the box, with the added promise of allowing organizations to build business applications. But most organizations are forced to rely on custom development coding, with its inherent learning curve, costs and project delays. This paper discussed how frustrations arise as usage requirements become more complex, then explained how you can eliminate this frustration by following five key guidelines for easily building better SharePoint sites without custom coding. Central to these five guidelines are Quest Web Parts, which offer value and capabilities far beyond what's available in native tools. Leveraging Quest Web Parts will help you get the most out of your SharePoint investment and provide a richer user experience for everyone.

ABOUT THE AUTHORS

Adam Woodruff

Adam Woodruff has been creating solutions that utilize Microsoft systems and infrastructure since 1998. He is skilled in Microsoft Exchange, Active Directory and SharePoint integrations and configurations for deployment and operational management. He is currently a solutions architect for Quest’s SharePoint products.

Prior to Quest, Adam worked for a number of consulting partners as a senior consultant for Windows Server 2008 and 2003, Exchange 2007 and 2003, SQL Server 2005 and SharePoint 2007 (MOSS). He has held positions at Convergent Consulting, Andelogic, Inc., Tech Heads, Inc., Interlink Group, LLC, and Microsoft, among others.

Doug Davis

Since 1999, Doug Davis has held senior positions at Quest Software in development, research and now product management. He is currently the director of product management for Quest's SharePoint group.

Prior to joining Quest, Doug spent seven years as a network administrator for Stentor Canada and Telesat Canada. Doug graduated from Carleton University in Ottawa Canada.

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- Seek help from a Support engineer.
- Log and update your case, and check its status.

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