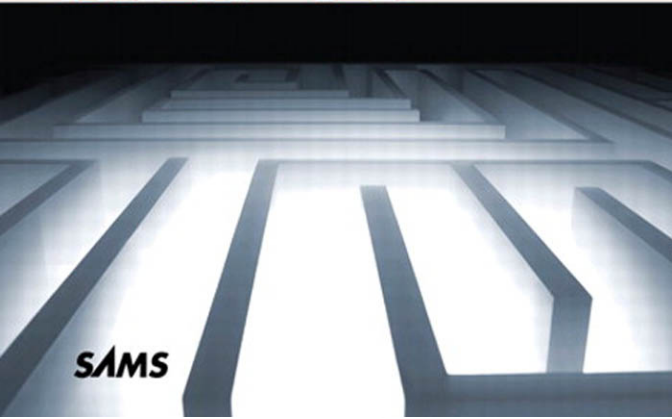
STEVEN MANN

InfoPath with SharePoint® 2013

HOW-TO



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STEVEN MANN

InfoPath with SharePoint® 2013

HOW-TO

SAMS | 800 East 96th Street, Indianapolis, Indiana 46240 USA

InfoPath with SharePoint 2013 How-To

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About the Author

Steve Mann was born and raised in Philadelphia, Pennsylvania, where he still resides today. He is an enterprise applications engineer for Morgan Lewis and has nearly 20 years of professional experience. Steve graduated Drexel University in 1993.

Steve has authored and coauthored several books related to the subject of SharePoint Server, PowerShell, managed metadata, and business intelligence. You can find Steve's blog at http://www.SteveTheManMann.com.

Dedication

In loving memory of my father, Robert Mann, who didn't deserve to go through what he did. It is hard to beat cancer twice and I am proud of him for being so brave the second time around.

I love you dad!

Acknowledgments

Special thanks to Richard Phillips, one of my previous customers but now my manager, who challenged me on InfoPath solutions within a SharePoint environment. Many ideas came from my experiences building solutions for Rich.

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Finally, once again, thanks to Sams Publishing and Neil Rowe for making this book a reality and for giving me the opportunity to share my ideas and solutions.

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Introduction

Overview of This Book

With the latest release of Microsoft SharePoint Server 2013, the entire Office platform has become even more integrated than before. This does not leave out Microsoft InfoPath Designer 2013. There has been a close bond between SharePoint and InfoPath since the 2010 release.

This book covers all the aspects within InfoPath and SharePoint 2013 that relate to creating and developing business solutions. It is geared toward both technical and semi-technical professionals and does not require a degree in computer programming.

The scenario-based presentation of the material provides not only a great tutorial but also an in-depth reference for accomplishing integral InfoPath tasks within the SharePoint platform.

How to Benefit from This Book

You'll find this book easy to read from cover to cover. The goal is to gain a full understanding of InfoPath with SharePoint 2013. The overall content presents as a tutorial but also serves as good reference material. Some material provides an overview of functionality or features, but most of the content is hands-on or provides a hands-on view.

Keeping both beginners and experts in mind, this book provides both breadth and depth to the usage of InfoPath and shows you how to leverage it to create business solutions. We designed the content of this book to appeal to a wide audience at various technical levels:

- Business analysts
- Information workers
- IT professionals
- IT developers
- Collaboration managers
- Content managers

You can access the code samples used in this book by registering on the book's website at http://informit.com/register. Go to this URL, sign in, and enter the ISBN to register (free site registration required). After you register, look on your Account page, under Registered Products, for a link to Access Bonus Content.

What Is New in This Book?

Just like a fine wine, certain titles get better with age. When Steve Mann wrote the 2010 version of this book, he set out to provide a well-rounded how-to guide that provided in-depth knowledge of working with InfoPath and SharePoint, attempting to provide answers to everything you need to know.

However, Steve kept notes from his experiences thereafter of ideas and procedures that were not covered in the 2010 version. Based on these, Steve has expanded his treasure trove of InfoPath how-to nuggets in this edition using InfoPath Designer 2013 within a SharePoint 2013 environment.

How to Continue Expanding Your Knowledge

We hope that this book provides foundational knowledge about InfoPath solutions with SharePoint 2013 and that you find everything you need here. However, business requirements and changing needs usually require custom solutions that cannot all be possibly documented in one location.

Therefore, the following resources are great ways to stay current and find additional answers if necessary:

Microsoft InfoPath Team Blog: http://blogs.msdn.com/infopath/

Microsoft Office Developer Center: http://msdn.microsoft.com/en-us/office/default.aspx

Author's Blog: http://stevethemanmann.com/

Email the author with any questions/issues: steve@stevethemanmann.com

CHAPTER 2

Create a SharePoint Form with InfoPath Designer

IN THIS CHAPTER

- Design a SharePoint Form Using the Blank Form Template
- Add Controls
- Preview Your Form
- Name Your Data Fields
- Add Submit Options
- Publish Your Form
- Use Your Form in SharePoint
- Create a Form Library from InfoPath
- Design a SharePoint Form Using the SharePoint Form Library Template

This chapter shows you how to generate an InfoPath form for use in SharePoint. The following chapters expand on the functionality and options available. This chapter serves as an end-to-end overall guide to creating a form and publishing it to SharePoint. Other chapters may cover some details or steps in further detail.

The first step to create SharePoint forms is to open InfoPath Designer. From there, you have a number of options. When designing a new form, you have the following template options:

SharePoint List: Use this template to generate an interface for interacting with a SharePoint list. The generated form can create the actual list in SharePoint.

SharePoint Form Library: Use this template to generate a form library that stores instances of your form from user input. The content type of this form library is your form template.

E-mail: Use this template to generate a form that can be used within emails.

Blank Form: This is the base web browser form template used to generate SharePoint forms from scratch.

Blank Form (InfoPath Filler): This base client form template is used to generate forms that require users to have InfoPath installed locally on their computers. The forms created using this template are not rendered in a web browser.

Database: Use this template to quickly create a form based on a database table from Access or SQL Server.

Web Service: Use this template to generate a form that queries a web service for information.

XML or Schema: This template is used to easily replicate the data structure of an Extensible Markup Language (XML) file or schema (XSD).

Data Connection File: Use this template to quickly generate a form that uses a data connection file stored in SharePoint.

Convert Existing Form: The name is confusing because you would think this is used to convert an existing InfoPath form, but this template actually uses converters to import Microsoft Word or Microsoft Excel documents and convert them into InfoPath forms.

Document Information Panel: InfoPath now makes it easier to customize input into Office documents based on SharePoint columns. Use this template to generate the data entry portion of a Microsoft Office document that is stored within a SharePoint library and contains additional fields for user entry.

Blank 2010 Form: Use this form to create a web-based InfoPath 2010 form.

Blank 2010 Form (InfoPath Filler): Use this form to create a client-based InfoPath 2010 form. Users need InfoPath 2010 installed locally on their computers.

NOTE Throughout this book, the terms InfoPath form and SharePoint form may be used interchangeably. A SharePoint form is essentially a web-enabled InfoPath form with the intention to be able to use the form in SharePoint.

Design a SharePoint Form Using the Blank Form Template

Scenario/Problem: You want to create a new form for user input to be used in SharePoint.

Solution: When you open InfoPath Designer 2013, you are automatically taken to the File, New page, as shown in Figure 2.1. Either double-click Blank Form or select the Blank Form button and click the Design Form button to create a new blank form.

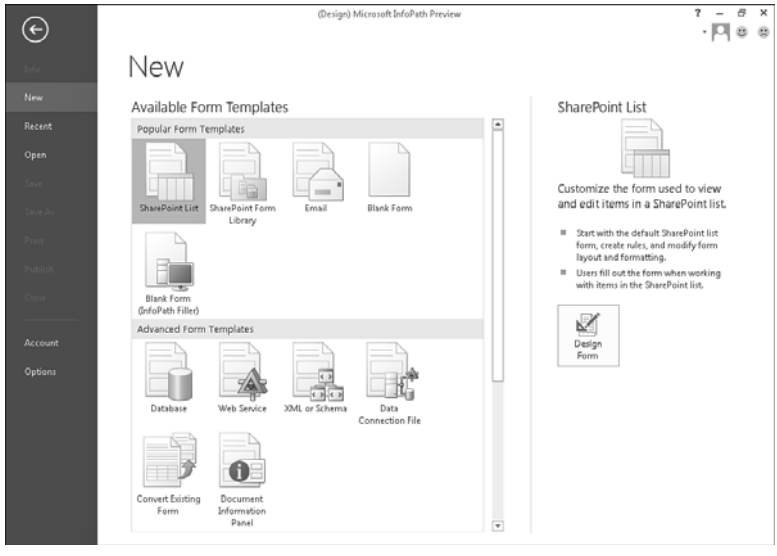

FIGURE 2.1 The New page provides templates for designing new forms.

To design a simple form, follow these steps:

1. Click the Click to Add Title text that appears and enter a title for the form.
2. Click in the bottom section of the form where it states Add Tables.
3. Click the Insert ribbon bar menu and select the Two-Column 4 table in the Tables section. This is a layout table that assists in aligning the labels and controls on your form.
4. Click the File menu and then click Save.
5. Enter a name for the form file and click OK. This saves a local copy of the form.

We now have a base form to which we can start adding controls, as shown in Figure 2.2.

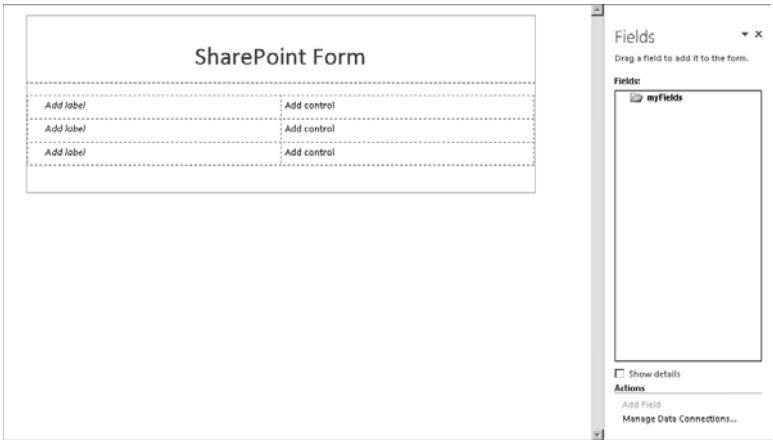

FIGURE 2.2 Entering a title and adding a layout table to a form produces a base form.

Add Controls

Scenario/Problem: You need to add controls to a form for user entry.

Solution: Use the Controls section from the Home top ribbon bar.

To add controls to your form, follow these steps:

1. Click the first Add Control cell in the layout table of the form.
2. From the Home ribbon bar, locate the Controls section, as shown in Figure 2.3, and click Text Box.

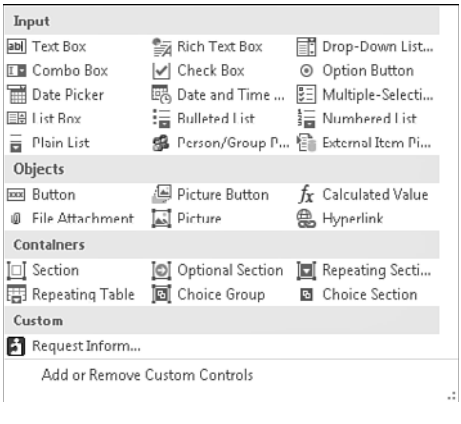

FIGURE 2.3 The Controls section displays the available controls that you can insert onto your form.

3. Click the Add label in the cell to the left of the text box and enter a label for this entry. This tells the user what information to enter into the text box.
4. Repeat these steps for the remaining rows in the layout table. Your form should look similar to Figure 2.4.
5. Click Save from the File menu to save your changes locally.

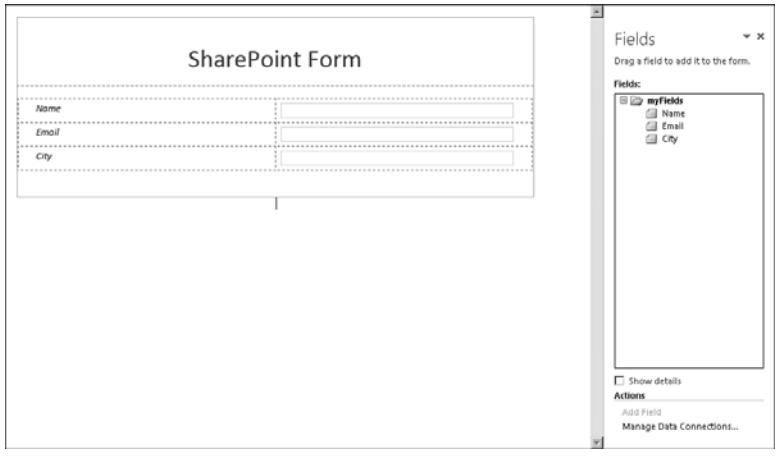

FIGURE 2.4 Adding labels and controls to the form provides the basis for user data entry.

Preview Your Form

Scenario/Problem: You need to see how your form works before you publish it to SharePoint.

Solution: With your form open and saved, there are three ways to preview the contents:

- Press the F5 key.
- Click the magnifying glass icon at the very top of the InfoPath Designer application.
- Click the Preview Form button on the Home ribbon bar.

Your form will render in the InfoPath Filler version of the application, and you can view how it works there, as shown in Figure 2.5.

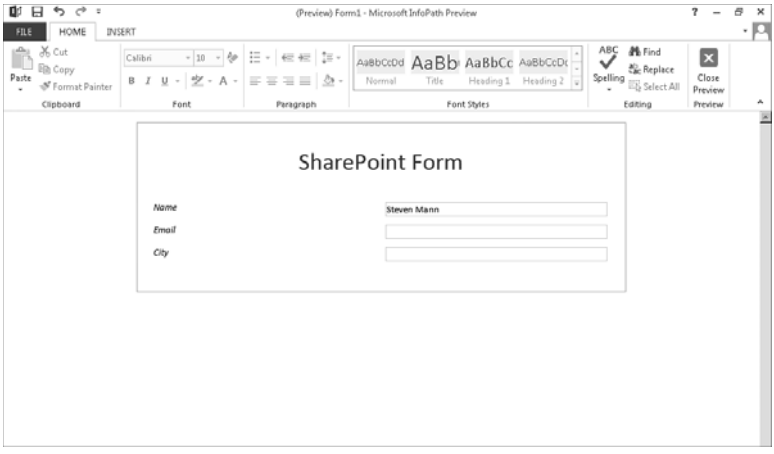

FIGURE 2.5 Previewing your form shows you how the user will experience it.

Name Your Data Fields

Scenario/Problem: You want to give your fields meaningful names. By default, when adding controls to your form, InfoPath names the fields that will store the data generically (that is, Field1, Field2, and so on).

Solution: Change the name of the each field by either right-clicking each control or right-clicking the fields in the Fields pane and selecting Properties. Enter a new name for the field name. Figure 2.6 provides an example.

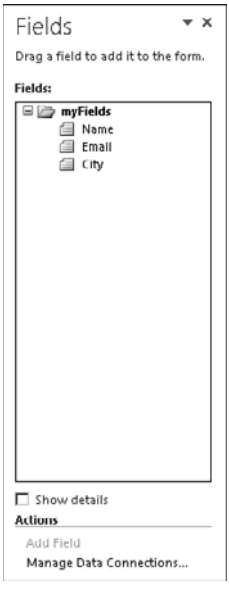

FIGURE 2.6 Naming your fields appropriately makes them easier to identify and manage.

NOTE To be consistent, naming conventions should be established. Developers may use camel case (for example, lastName, firstName), whereas business analysts might use Pascal case (for example, LastName, FirstName). There is no wrong or right answer as long as everyone follows the same standards.

Add Submit Options

Scenario/Problem: You need to enable users to submit the form after they fill it out.

Solution: From the File menu, select Info. On the Info page, click the Submit Form button.

Several options appear (as shown in Figure 2.7):

- **To Email:** Submitting this form sends the contents in an email to a specified address.
- **To SharePoint Library:** Submitting this form sends the contents as a saved instance of the form in a SharePoint form library.
- **To Web Service:** Submitting this form sends the form as XML to a web service.
- **To SharePoint Server Connection:** Submitting this form uses a specified data connection stored in SharePoint to submit the data.
- **Submit Options:** If you are familiar with InfoPath 2010 or just want to take control of the submit options, use this item menu to just get down to business.

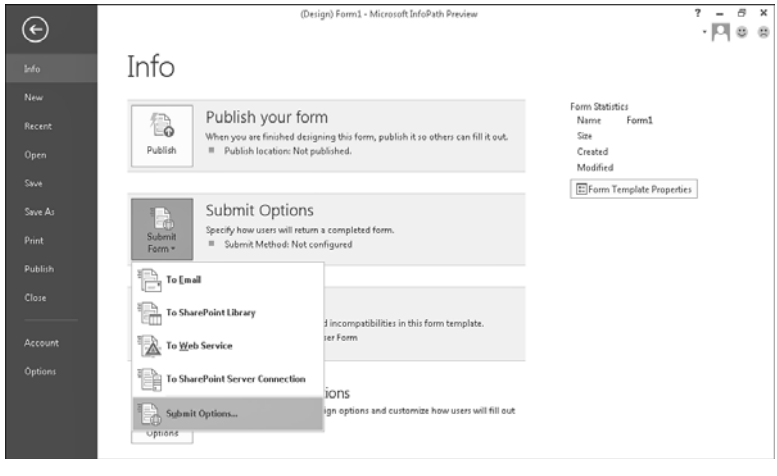

FIGURE 2.7 Submit options determine where and how a completed form will be submitted.

For this scenario, select To SharePoint Library. The Data Connection Wizard appears. For the form to be submitted to that form library, you need to have a data connection to the SharePoint library in the form.

You must specify a form library in SharePoint to submit the form; therefore, you might need to go to your SharePoint site and create a new form library first. Enter the location of the form library in the Document Library text entry. (Create a form library named SharePoint Forms for this example.)

TIP You can create the form library right from InfoPath, as explained in a later section.

Now that some of the grunt work has been done, we come to the most important part of the submission to a document library: the filename. If you notice, by default, the filename is Form. That's great. If you leave it like that, only one person can submit the form, it will be called Form.xsn in the form library, and no one ever can submit the form again. Let's go home!

You need to specify something dynamic or unique about the form instance the user is submitting. This can be tricky. You must define a formula to implement this correctly, and although we haven't stepped through formulas yet, we are forced to do at least one here.

The main ingredients for specifying the filename correctly deal with either entries in the form or entries in the form combined with a system function such as the date.

For this example, we use the name the user entered in the form along with a date function. To do so, follow these steps:

1. Click the Function button to the right of the File Name text box. The Insert Formula dialog appears.
2. Click the Insert Function button and select the concat function. Click OK. The function inserts three spots for you to modify.
3. Double-click the first entry and select the Name field from the field dialog that appears and click OK.
4. Only select the next entry (don't double-click) and replace it with **" – "**, including the quotation marks.
5. Select the last entry and click the Insert Function button. Select Today from the Date category.
6. Click OK.
7. Remove the Double-Click to Insert Field text if it still appears. Click OK. Your formula should now look similar to Figure 2.8.

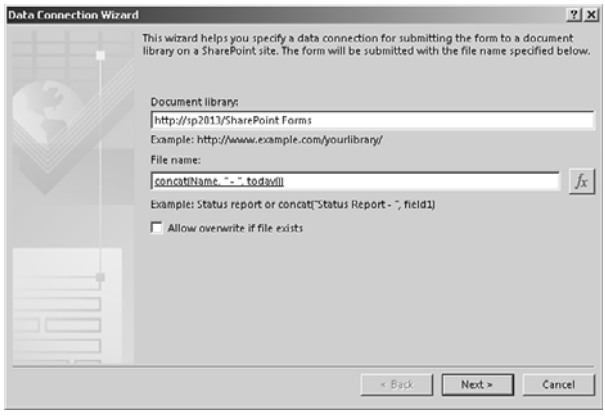

FIGURE 2.8 Using a formula for the filename ensures that each instance is saved to a unique file.

8. Click Next. If you are prompted for credentials, enter them accordingly.
9. Click Finish to save the connection in the form.

TIP If you use the now date function, the time component will be used in the filename, and even if you select to overwrite existing files, the filename will never be the same (because the time changes every second). Avoid this, if possible, because every update generates a new file.

Publish Your Form

Scenario/Problem: You need to publish your form to SharePoint so that users can actually use it.

Solution: From the File menu, select Publish. On the Publish page, click the SharePoint Server button.

Clicking the SharePoint Server button, as shown in Figure 2.9, launches the Publishing Wizard. Follow these steps to publish using the wizard:

1. Enter your SharePoint site address, as shown in Figure 2.10.
2. Click Next. The What Do You Want to Create or Modify? screen appears, as shown in Figure 2.11. Leave the defaults.
3. Click Next. The What Do You Want to Do? screen appears.
4. Select Update the Form Template in an Existing Form Library.

5. Select the existing form library from the list, as shown in Figure 2.12. (To create a new form library see the "Create a Form Library from InfoPath" section later in this chapter.)
6. Click Next. Click Next. Click Publish. The form is published to your SharePoint form library.

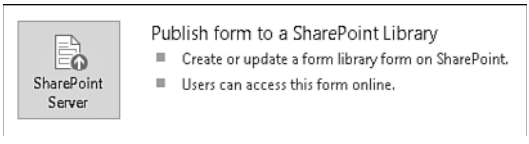

FIGURE 2.9 Clicking SharePoint Server launches the Publishing Wizard.

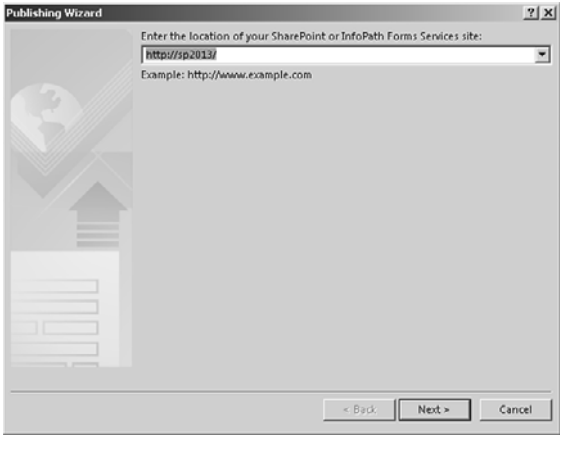

FIGURE 2.10 Enter the location of your SharePoint site.

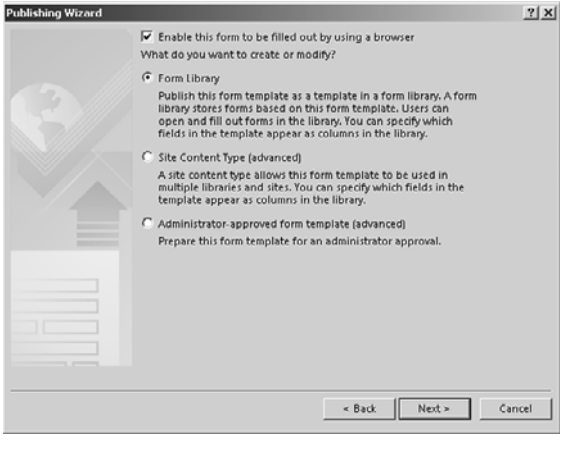

FIGURE 2.11 Leave the defaults.

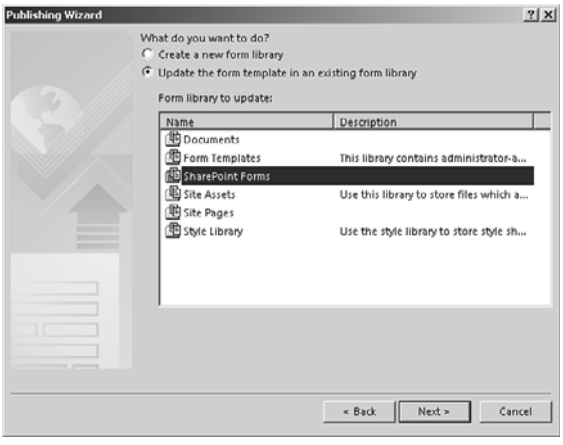

FIGURE 2.12 Select Update the Form Template in an Existing Form Library.

TIP After you have stepped through the publish process once, you can facilitate future republishing of your form by using the Quick Publish button.

Use Your Form in SharePoint

Scenario/Problem: You need to test your published form in SharePoint.

Solution: Navigate to the form library you created in SharePoint and click the Add Document link.

Your form should render in the browser, as shown in Figure 2.13. Enter some values in the text boxes and click the Submit button. An instance of the form is saved to your form library, as shown in Figure 2.14. Notice the filename is using the formula we entered in our submit options.

NOTE When you use certain SharePoint site templates, such as the Blank Site template, the Enterprise features might not be enabled. You need to make sure that Enterprise features are enabled to publish the form as a browser-enabled form.

NOTE The Save and Save As buttons shown here allow the user to save the form using a filename. This circumvents the configured Submit button. Chapter 8, "Submitting and Publishing in SharePoint," discusses how to change the buttons that appear.

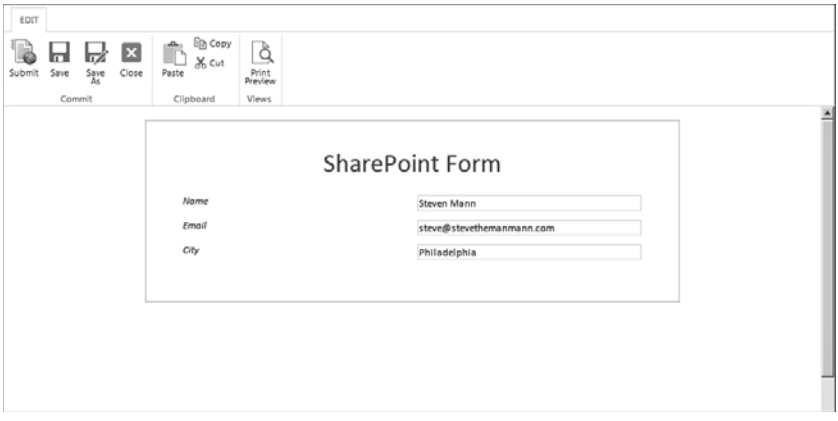

FIGURE 2.13 Clicking the Add Document link opens a new instance of your form within the browser.

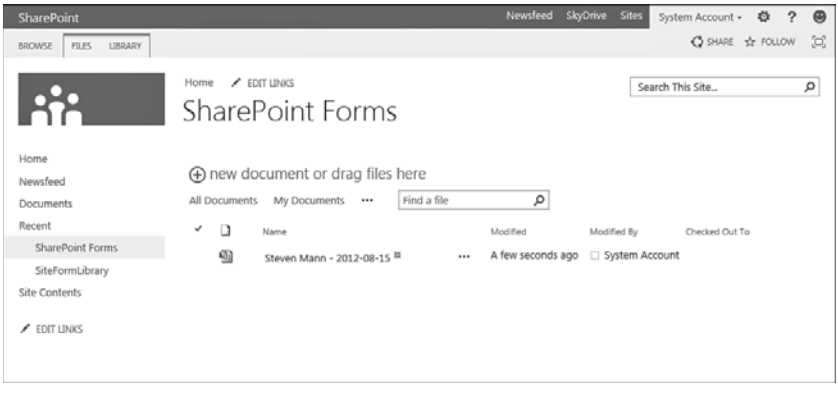

FIGURE 2.14 Submitting the form saves an instance of the form within the form library.

Create a Form Library from InfoPath

Scenario/Problem: You need create a form library to publish and submit the form.

In the preceding section, you created the form library manually. By doing so, you understood where the InfoPath form was going to be published and submitted. When starting from scratch with the Blank Form template, you can use the Publish Form to a SharePoint Library option to create the form library and publish the form, but you also

need to enter submit options after the form has been published. Therefore, you need to publish again after you have entered the submit options. It becomes a chicken-or-the-egg scenario.

Nonetheless, if you create a form using the Blank Form template, you may create the form library to house it using the Publish Form to a SharePoint Library option, as follows:

1. From the File menu, select Publish. On the Publish page, click SharePoint Server (Publish Form to a SharePoint Library). The Publishing Wizard appears.
2. Enter your main SharePoint URL or the full site address where you want the form library created and click Next.
3. Keep the defaults to create a form library and use the form in the web browser. Click Next.
4. Select the Create a New Form Library option, as shown in Figure 2.15, and click Next.

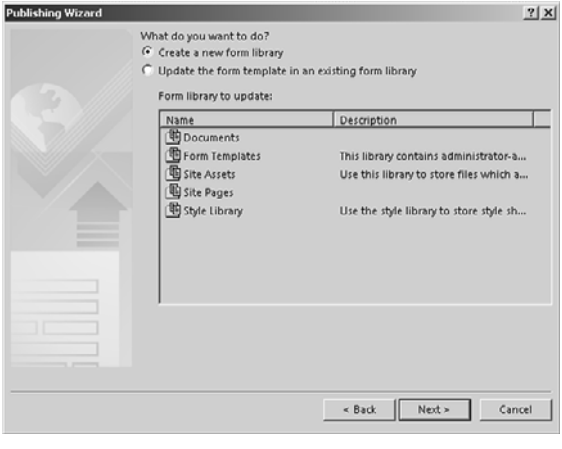

FIGURE 2.15 Selecting the Create a New Form Library option allows you to create the form library from InfoPath.

5. Enter the name of the new form library and a description on the next wizard dialog and click Next.
6. Click Next on the fields selection dialog.
7. Verify the information and click Publish.

Design a SharePoint Form Using the SharePoint Form Library Template

Scenario/Problem: You want to use the SharePoint Form Library template to create a new form for user input in SharePoint.

Solution: From the File menu, select New. On the New page, click the SharePoint Form Library template button, and click the Design Form button.

The SharePoint Form Library template provides you with additional starting points, including two subheadings and tables, as shown in Figure 2.16.

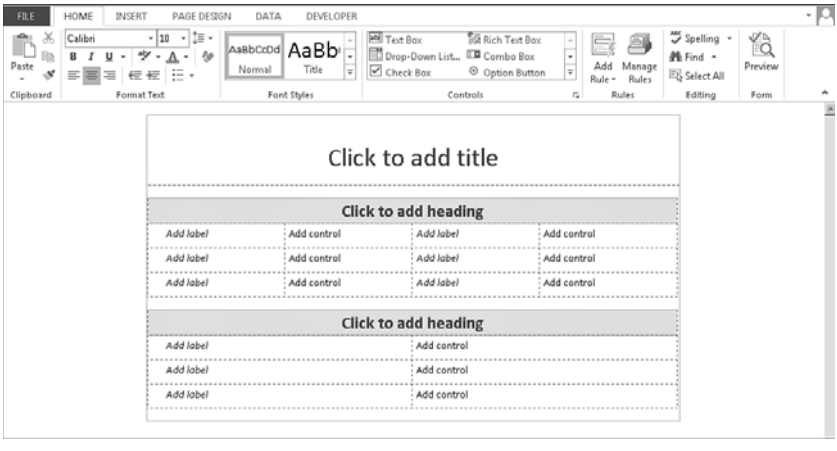

FIGURE 2.16 The SharePoint Form Library template provides more starting material for when you're designing a new form.

TIP The SharePoint Form Library template is a glorified version of the Blank Form template.

So, now you can use this template and apply the same techniques described earlier in this chapter to publish the form to SharePoint. However, you still need to create a form library and configure the submit options.

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