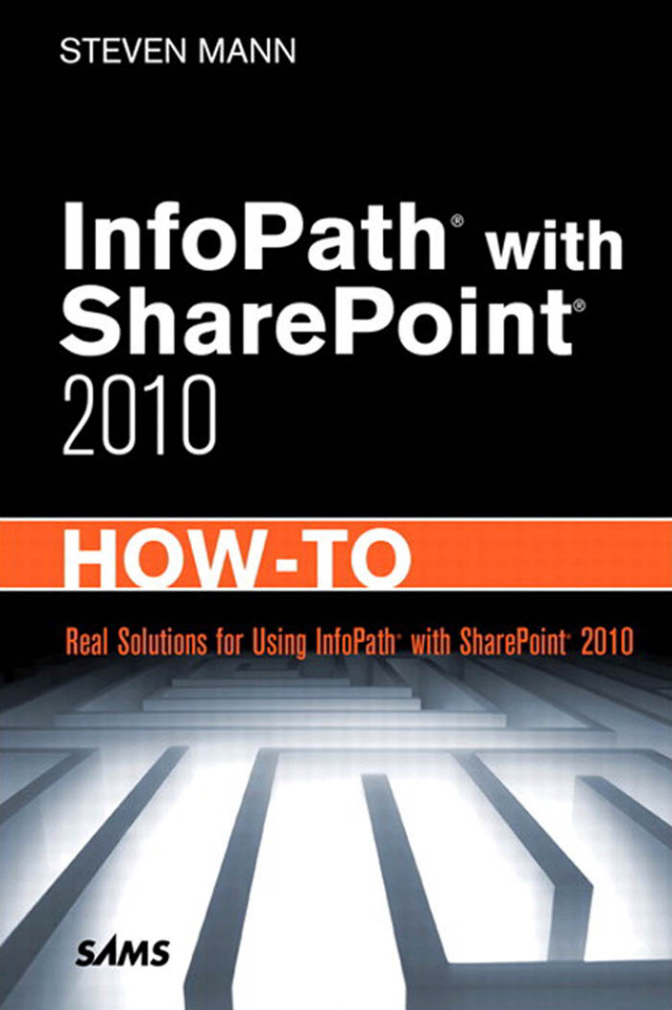
STEVEN MANN

InfoPath® with SharePoint® 2010

HOW-TO

Real Solutions for Using InfoPath® with SharePoint® 2010



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Contents at a Glance

Introduction ... 1
1 Usage of InfoPath Designer 2010 ... 3
2 Creating a SharePoint Form with InfoPath Designer ... 9
3 SharePoint Form Controls ... 23
4 SharePoint Form Rules ... 45
5 SharePoint Form Functions ... 63
6 SharePoint Form Page Design and Views ... 77
7 SharePoint List Forms ... 89
8 Submitting and Publishing in SharePoint ... 99
9 Using Data in SharePoint Forms ... 123
10 InfoPath Form Web Part ... 163
11 Using Forms in SharePoint Workflows ... 183
12 Enhancing the User Experience ... 207
13 Leveraging the SharePoint Workspace ... 229
14 Using Template Parts to Create Reusable Form Components ... 237
15 Document Information Panel Content Type ... 247
16 Leveraging Visual Studio 2010 with InfoPath ... 255
17 Dynamically Populate a Repeating Table ... 263
18 Track Changes in a Form ... 275
19 Central Administration ... 293
20 PowerShell ... 307
21 Managing Form Permissions ... 317
22 General Form Issues ... 327
23 Deployment and Publishing Issues ... 337
24 Form Submission Issues ... 343
Index ... 349

Table of Contents

Introduction **1**

Overview of This Book 1

How to Benefit from This Book 1

How to Continue Expanding Your Knowledge 2

1 Usage of InfoPath Designer 2010 **3**

Why Use an InfoPath Form? 4

What Does InfoPath Do for My Lists? 4

Why Use InfoPath Forms in Workflows? 5

How Does InfoPath Integrate with My Data? 5

InfoPath Versus Web Controls and Web Parts 5

What Is the InfoPath Web Part? 5

Are There Any New Controls in InfoPath 2010? 6

Does InfoPath 2010 Make Anything Easier? 6

Getting Started 7

2 Creating a SharePoint Form with InfoPath Designer **9**

Design a SharePoint Form Using the Blank Form Template 11

Add Controls 12

Preview Your Form 13

Name Your Data Fields 14

Add Submit Options 15

Publish Your Form 17

Use Your Form in SharePoint 18

Create a Form Library from InfoPath 19

Design a SharePoint Form Using the SharePoint Form Library Template 20

3 SharePoint Form Controls **23**

What Are Input Controls? 24

What Are Object Controls? 25

What Are Container Controls? 26

Drag Controls on Your Form 26

Allow Users to Enter Text 27

Make a Text Box Read-Only 27

Make a Text Box Multiline 28

Allow Users to Select a Single Selection from a List of Items 28

Allow Users to Select Multiple Items from a List of Items 30

Allow Users to Select an Optional Single Choice 32
Allow Users to Select from Various Options 33
Allow Users to Enter a Date/Time 34
Allow Users to Select a Person 36
Allow Users to Select from a SharePoint External Content Type 37
Allow Users to Initiate an Action 37
Show Optional Controls on Your Form 39
Allow Users to Enter Multiple Instances of the Same Fields 40
Allow Users to Choose Which Set of Fields to Use 41
Make a Control/Field Required 43

4 SharePoint Form Rules 45
Hide or Show Controls Based on a Selected Option 46
Format an Entry Based on a Condition 49
Implement a Validation Rule 52
Add an Action Rule to a Button 54
Use Rules for Form Submission 55
Use Rules for Form Loading 58
Validate Data Entry Using Patterns 59

5 SharePoint Form Functions 63
Use the SharePoint URL Functions 64
Calculate a Future Date 65
Get the Current SharePoint User 66
Remove Leading and Trailing Spaces from a Field Value 69
Remove All Spaces from an Entry 69
Default a Blank Amount to Zero 70
Calculate the Sum of All Items 71
Determine a Count of the Items Entered 73
Obtain a Portion of an Entered String 74

6 SharePoint Form Page Design and Views 77
Change the Current View Name 78
Create a New View 79
Change the Default View 80
Make a View Read-Only 80
Prevent a User from Selecting a View 81
Use a View for Printing 82
Use a Different Layout for Your Form 83
Use a Theme for Your Form 84
Add Headers/Footers to Your Form 85
Insert a Table Layout into Your Form 86
Modify a Table Layout in Your Form 86

7 SharePoint List Forms 89
Use a Form to Create a SharePoint List 90
Modify the Form of an Existing SharePoint List 95
Set Your List Form Template Back to the Default Form 96

8 Submitting and Publishing in SharePoint 99
Enable Your Form for Submission 100
Configure Email Submission 101
Publish Your Form to Email 103
Configure SharePoint Library Submission 106
Publish Your Form to a SharePoint Library 107
Use Multiple Forms in SharePoint Libraries 110
Configure Web Service Submission 115
Configure SharePoint Server Connection Submission 117
Modify the Available Menu Buttons During Form Submission 120

9 Using Data in SharePoint Forms 123
Use Data From a Database 124
Convert an InfoPath Connection to a SharePoint Connection File 129
Use Data From a SharePoint List 131
Use Data From a SharePoint Data Connection File 134
Use Data from a (SOAP) Web Service 135
Populate a Drop-Down List with Data 138
Populate a Drop-Down List with Data Based on Another Selection (Cascading Drop-Down) 140
Display Data from a SharePoint List 145
Display a Repeating Table From a SharePoint List 149
Leverage External Data from a SharePoint External 155
Content Type (Business Data Connectivity Services) 155
Leverage External Data from a REST Web Service 157

10 InfoPath Form Web Part 163
Add an InfoPath Form Web Part to a SharePoint Web Part Page 164
Create a Master/Detail Display Form For SharePoint Lists 167
Use the Edit Form on the List Page 169
Create a Custom List Page That Displays the List Item Form 172
Expose Form Fields as Web Part Connection Parameters 175
Create a Form to Send Data to Web Parts 177

11 Using Forms in SharePoint Workflows 183
Create a SharePoint Workflow for a Form Library 184
Include a Link to the Form in an Email 189

Add a Task to the Workflow 190
Perform Workflow Actions Based on Form Values 193
Perform One Workflow Action or Another (But Not Both) 198
Get a User from a People/Group Picker Control 200
Customize the Task Form 202
Add Form Parameters Used When Starting Your Workflow 203

12 Enhancing the User Experience 207

Display a Read-Only Value 208
Compact Sections of Fields/Controls 211
Configure Dynamic Sections 212
Make Screen Tips Informative for Validation 215
Notify the User of Successful Submission 216
Create a Tabbed Navigation in Your Form 220
Use Pictures as Choices 223

13 Leveraging the SharePoint Workspace 229

Synchronizing Your List or Site 230
View Your List and Display Form Offline 231
Edit a List Item Using the Edit Form Offline 232
Create a New List Item Using the New Form Offline 233
Synchronize Offline Changes to SharePoint 234

14 Using Template Parts to Create Reusable Form Components 237

Create a New Template Part 238
Add Common Data Connections 239
Add Common Controls 239
Add Common Fields 239
Saving Your Form Template Part 240
Adding Your Template Part as a Custom Control 240
Using Your Template Part as a Control 243
Change the Name of Your Custom Control 244
Change the Icon of Your Custom Control 246

15 Document Information Panel Content Type 247

Create the Document Library 248
Add Columns to Your DIP 249
Modify the DIP 252

16 Leveraging Visual Studio 2010 with InfoPath 255

Accessing Your Form Within a Visual Studio Workflow 256
Create an InfoPath 2010 Add-In 260
Create a Custom Task Pane 261

17 Dynamically Populate a Repeating Table 263
Set Up the Initial Form 264
Create a Changed Event Method 266
Create a Namespace Variable 268
Access the Secondary Data Source 268
Loop Through the Secondary Data Source 269
Populate the Repeating Table 270
Clear Previous Entries 271
What Does the Final Solution Look Like? 272

18 Track Changes in a Form 275
Set Up the Form for Tracking Changes 276
Add Changed Event Code for Tracking Changes 278
Apply Rich Text to the Entry 283
Only Show One Version at a Time 284
Display a Changes Counter 289
Display the User Who Made the Modification 290

19 Central Administration 293
Access the InfoPath Form Services Options 294
Browser-Enable Form Templates 295
Throttle Data Connection Timeouts 296
Throttle the Data Connection Response Size 296
Modify Authentication Settings 297
Configure Session State 298
Upload a Form Template 299
What Happens When a Form Is Uploaded? 301
Manage Form Templates 301
What Happens When a Form Is Activated to a Site Collection? 303
Enable the Web Service Proxy 303
Manage Data Connections 305

20 PowerShell 307
Access SharePoint 2010 Management Shell 308
Browser-Enable Form Templates 309
Throttle Data Connection Timeouts 310
Throttle the Data Connection Response Size 310
Modify Authentication Settings 311
Configure Session State 312
Enable View State 313
Verify and Upload a Form Template 313
Upload Multiple Form Templates at Once 314

Activate or Deactivate a Form to a Site Collection 314
Remove a Form from InfoPath Form Services 315
Quiesce a Form from InfoPath Form Services 315
Enable the Web Service Proxy 315

21 Managing Form Permissions 317
Creating Unique Permissions on a Form Library 318
Granting Users Permissions 319
Creating a Permission Level for Your Form Library 321
Editing a Group's Permission Level 323
Create a Submit-Only Permission Level 325

22 General Form Issues 327
Resolve: Issue Accessing Data Source 328
Resolve: SQL Credential Issue 329
Resolve: Business Data Connectivity Metadata Store Is Currently Unavailable 330
Resolve: Picker Issue Obtaining Business Data 331
Resolve: Modifying a List/Library Page Makes the Ribbon Disappear 332
Resolve: SharePoint Designer Task List Creation Error 333
Resolve: VSTA Required Issue 334
Resolve: Error Loading the Form 335
Resolve: Security Exception Using Code-Behind 336

23 Deployment and Publishing Issues 337
Resolve: No File with URL in This Web 338
Resolve: Form Cannot Be Browser Enabled on Selected Site 338
Resolve: Form Template Has Not Been Published 340
Resolve: Sandboxed Solutions Not Enabled 341

24 Form Submission Issues 343
Troubleshoot General Submission Issues 344
Resolve: SharePoint Location Is Read-Only 344
Resolve: Document Library Already Contains a File with the Same Name 345
Resolve: Errors Submitting to a Web Service 346

Index 349

Introduction

Overview of This Book

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

This book is designed to cover all the aspects within InfoPath and SharePoint 2010 that relate to creating and developing business solutions. It is geared toward both technical and semitechnical 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

We designed this book to be easy to read from cover to cover. The goal is to gain a full understanding of InfoPath with SharePoint 2010. The overall content can be considered a tutorial but can also serve as good reference material. Some material is 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 can show you how to leverage it to create business solutions. We designed the content of this book so that it would 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 **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.

How to Continue Expanding Your Knowledge

We hope that this book provides foundational knowledge about InfoPath solutions with SharePoint 2010 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
- **RDA Collaboration/Search Blog:** http://rdacollab.blogspot.com/
- **Author's Blog:** http://stevethemanmann.com/

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CHAPTER 2

Creating 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.

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 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 2007 Form:** Use this form to create a web-based InfoPath 2007 form.
- **Blank 2007 Form (InfoPath Filler):** Use this form to create a client-based InfoPath 2007 form. Users need InfoPath 2007 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 2010, 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.

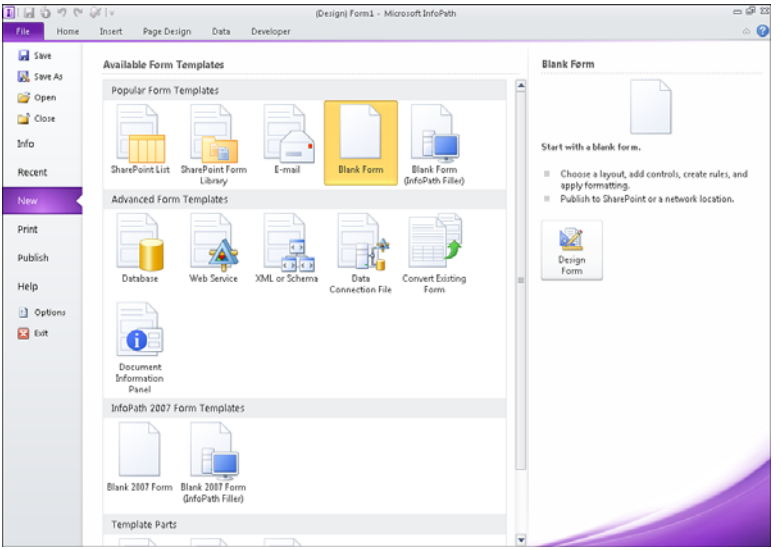

FIGURE 2.1
The New page provides templates for designing new forms.

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 select Save.
5. Enter a name for the form file and click OK. This will save 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.

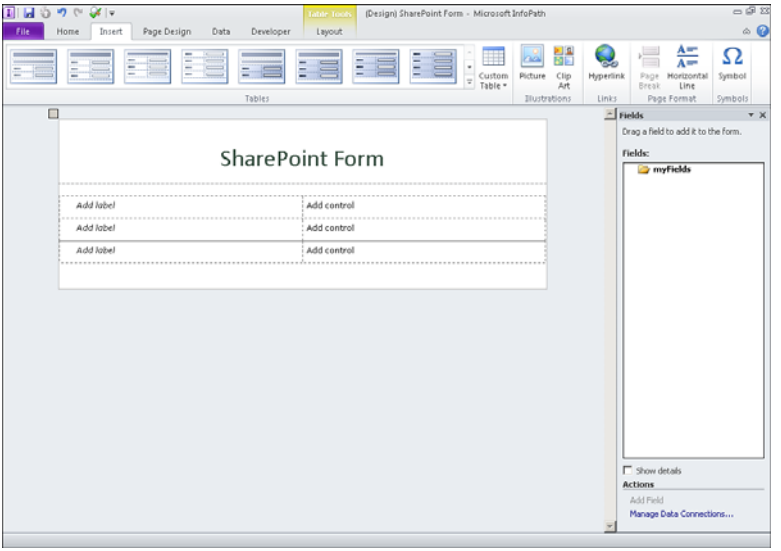

FIGURE 2.2
Entering a title and adding a layout table to a form produces a base form.

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.

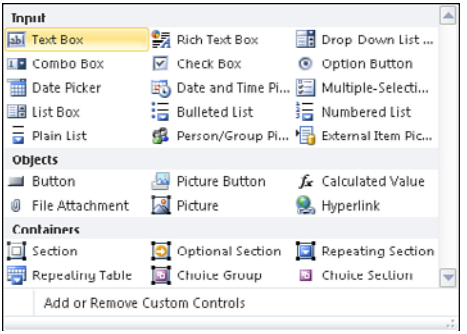

FIGURE 2.3
The Controls section displays the available controls that you can insert onto your form.

3. Click the Add label in the cell to the left of the text box and enter a label for this entry. This is tell 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.

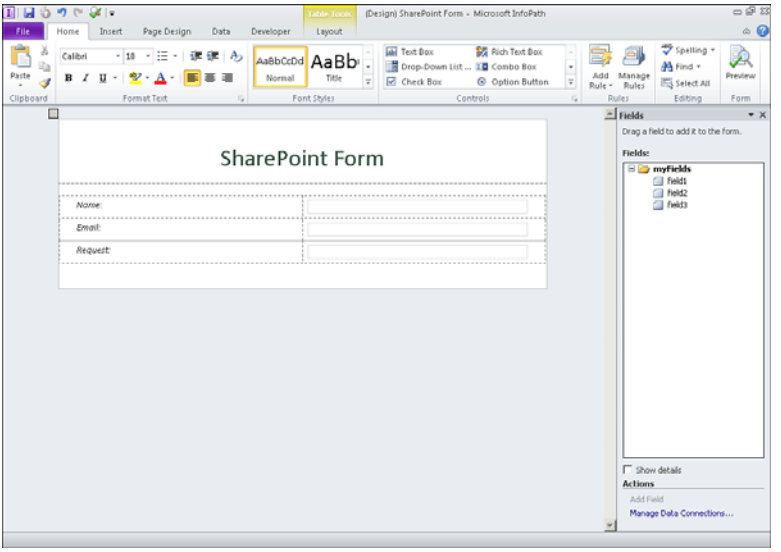

FIGURE 2.4
Adding labels and controls to the form provides the basis for user data entry.

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 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.

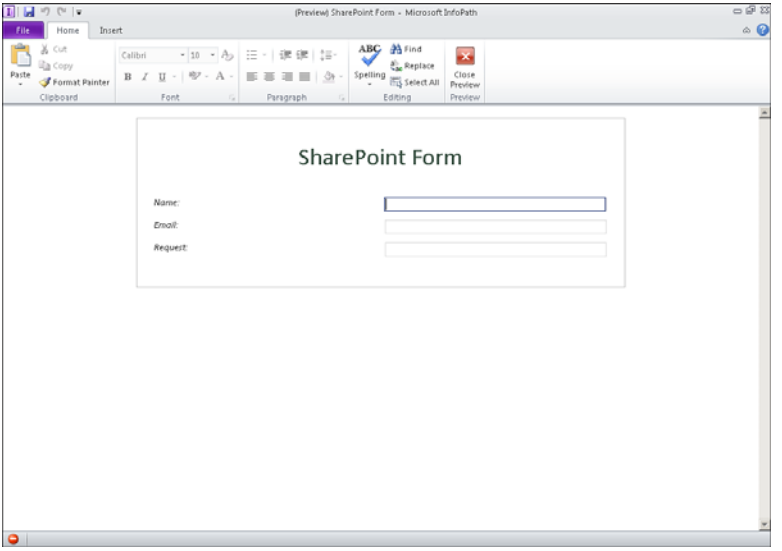

FIGURE 2.5
Previewing your form shows you how the user will experience it.

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.

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 answer as long as everyone follows the same standards.

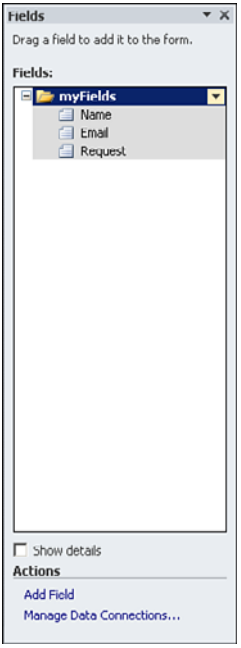

FIGURE 2.6
Naming your fields appropriately makes them easier to identify and manage.

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 will send the contents in an email to a specified address.
- To SharePoint Library: Submitting this form will send the contents as a saved instance of the form in a SharePoint form library.
- To Web Service: Submitting this form will send the form as XML to a web service.
- To SharePoint Server Connection: Submitting this form will use a specified data connection stored in SharePoint to submit the data.
- Submit Options: If you are familiar with InfoPath 2007 or just want to take control of the submit options, use this item menu to just get down to business.

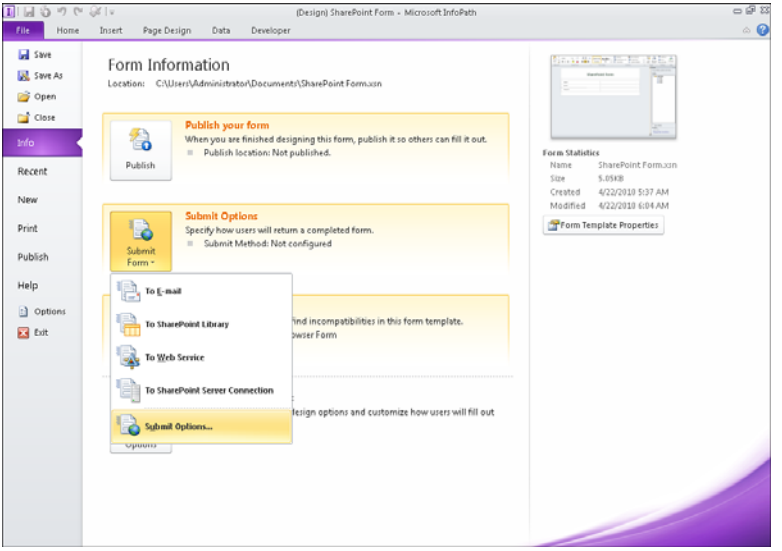

FIGURE 2.7
Submit options determine where and how a completed form will be submitted.

For this scenario, let's just 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 Form 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 will 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 quotes.
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.

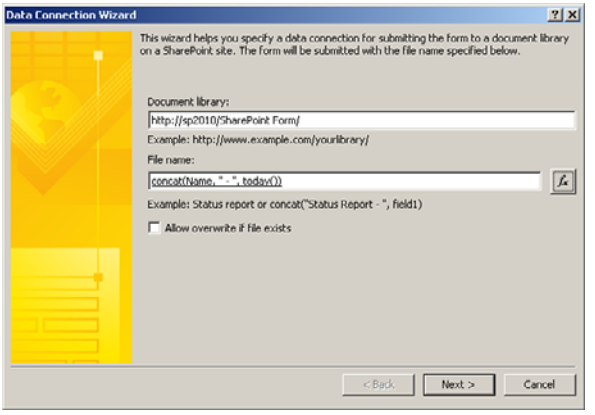

FIGURE 2.8
Using a formula for the file-name ensures that each instance is saved to a unique file.

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 file-name, and even if you select to overwrite existing files, the filename will never be the same. Avoid this, if possible, because every update will generate 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 Info. On the Info page, click Quick Publish.

Because we have gone through the submit options, InfoPath knows that the user will be submitting the form to a specific form library. Therefore, the submit location becomes the default publishing location; usually they are the same. Using the Quick Publish button, as shown in Figure 2.9, saves several steps (but we will still investigate manual publishing later). Note that the Quick Publish may not be available until a complete Publish has been performed once.

FIGURE 2.9
You can publish your form in one easy step by clicking 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 2.10. 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 2.11. Notice the filename is using the formula we entered in our submit options.

NOTE Using certain site templates, such as the Blank template, may not have Enterprise features enabled. You need to make sure Enterprise features are enabled to publish the form as a browser-enabled form.

NOTE The Save and Save As buttons are shown here and will 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.

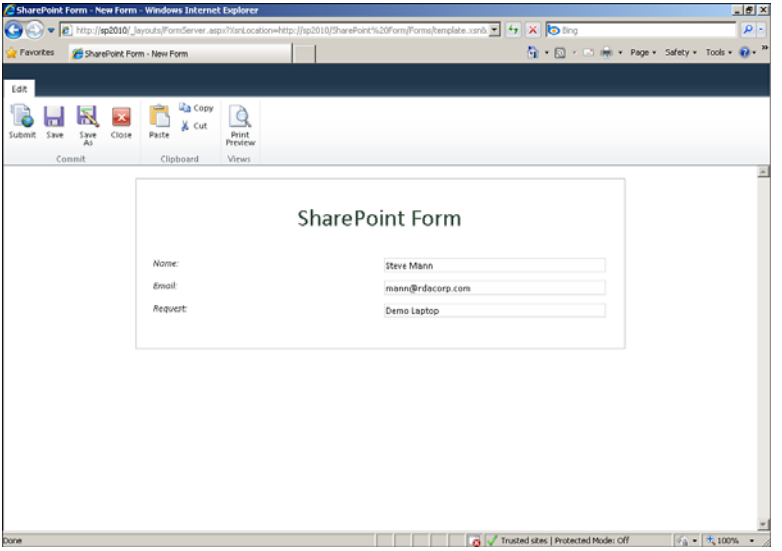

FIGURE 2.10
Clicking the Add document link opens a new instance of your form within the browser.

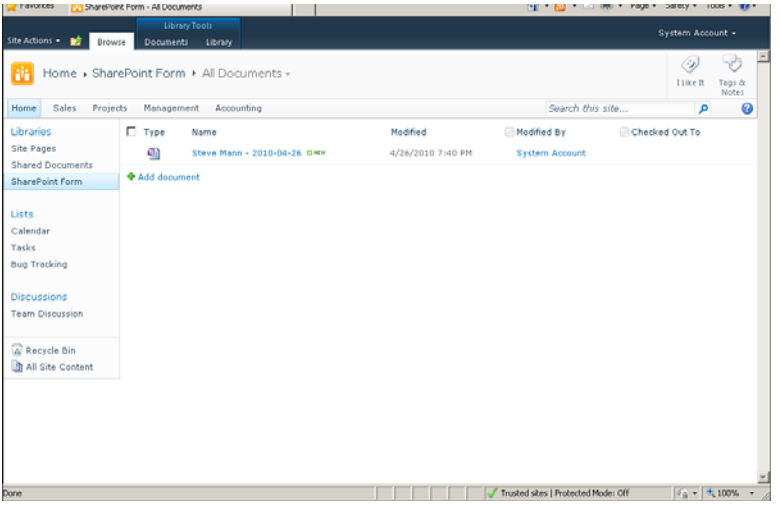

FIGURE 2.11
Submitting the form saves an instance of the form within the form library.

Create a Form Library from InfoPath

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

Solution: From the File menu, select Publish. On the Publish page, click SharePoint Server (Publish Form to a SharePoint Library).

In the previous 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 2.12, and click Next.

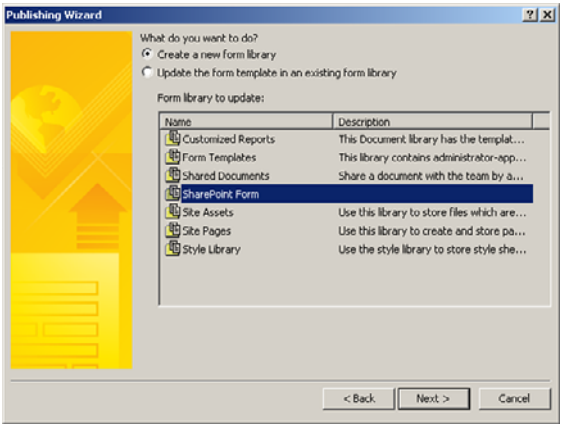

FIGURE 2.12
Selecting the Create a New Form Library option allows you to create the form library from InfoPath.

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 2.13.

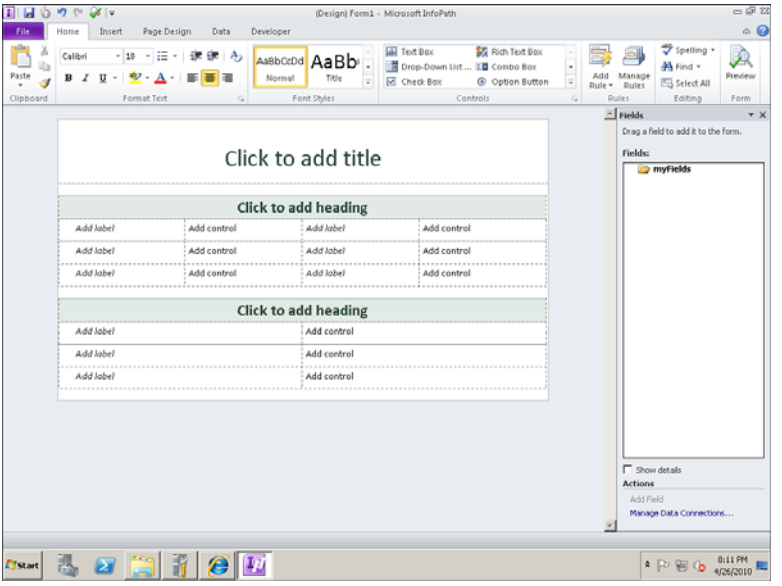

FIGURE 2.13
The SharePoint Form Library template provides more starting material for when you're designing a new form.

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. You will still need to create a form library and configure the submit options.

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Index

A

accessing
- data
  - from BCS (Business Data Connectivity Services), 155-157
  - populating cascading drop-down lists, 140-145
  - populating drop-down lists, 138-140
  - from REST web services, 157-162
  - from SharePoint connection files, 134-135
  - from SharePoint lists, 131-133
  - from SQL Server database, 124-128
  - from web services, 135-137
- data sources, troubleshooting, 328
- forms from within Visual Studio workflow, 256-260
- InfoPath Form Services options in Central Administration, 294
- secondary data source, 268-269
- SharePoint 2010 Management Shell, 308-309

account field, exposing in people/group picker control, 200-202

action rules, adding to buttons, 54-55

actions based on form values, 193-197
- else-if branches in, 198-199

activating forms to site collection, 303
- in PowerShell, 314

addDays() function, 65-66

adding
- controls, 12-13
- headers/footers, 85
- submit options, 15-17

add-ins, creating InfoPath 2010 add-ins, 260-261

administration. See Central Administration; PowerShell

administrator-approved forms, troubleshooting, 340

authentication settings, modifying
- in Central Administration, 297-298
- in PowerShell, 311

B

BCS (Business Data Connectivity Services)
- accessing external data from, 155-157
- starting, 330

Blank 2007 Form (InfoPath Filler) template, 10

Blank 2007 Form template, 10

blank amounts, defaulting to zero, 70-71

Blank Form (InfoPath Filler) template, 10

Blank Form template, 10

browser-enabled forms, troubleshooting, 339

browser-enabled form templates
- in Central Administration, 295
- in PowerShell, 309

Bulleted List control, 25

Business Data Connectivity Services (BCS)
- accessing external data from, 155-157
- starting, 330

Button control, 25
- adding action rules to, 54-55
- configuring picture buttons, 37-38
- picture buttons in forms, 224-227

C

Calculated Value control, 25

calculating
- dates, 65-66
- sums, 71-73

cascading drop-down lists, populating, 140-145

Central Administration
- accessing InfoPath Form Services options, 294
- browser-enabled form templates, 295
- configuring session state, 298-299
- enabling web service proxy, 303-305
- managing data connections, 305
- managing form templates, 302-303
- modifying authentication settings, 297-298
- throttling data connection response size, 296-297
- throttling data connection timeouts, 296
- troubleshooting SQL credentials, 329
- uploading form templates, 299-301

changed event code, adding for tracking changes, 278-283

changed event method, creating, 266-267

changes counter, displaying, 289-290

changes, tracking, 276
- adding changed event code, 278-283
- applying rich text, 283-284
- displaying changes counter, 289-290
- displaying username associated with changes, 290-292
- hiding/viewing navigation conrols, 284-289
- initial form setup, 276-278

changing. See also modifying
- custom control icons, 246
- default view, 80
- view names, 78

Check Box control, 24, 32-33

Choice Group control, 26

Choice Section control, 26, 41-43

class files, generating, 257

clearing previous table entries, 271-272

columns, adding to DIP (Document Information Panel), 249-252

Combo Box control, 24

conditional sections, configuring, 212-215

conditions in SharePoint workflows, 193-197
else-if branches in, 198-199
configuring
confirmation views, 216-220
dynamic sections, 212-215
email submission of forms, 101-103
InfoPath connections, 125-128
InfoPath Form web part on SharePoint web part page, 164, 167
session state
in Central Administration, 298-299
in PowerShell, 312
SharePoint library submission of forms, 106-107
SharePoint Server connection submission of forms, 117-119
web service submission of forms, 115-117
confirmation views, configuring, 216-220
connections (data)
creating, 239
managing in Central Administration, 305
connections (InfoPath). See also data, accessing
configuring, 125-128
converting to SharePoint connection files, 129-131
creating to SharePoint connection files, 134-135
container controls, types of, 26
content types
DIP (Document Information Panel), 248
adding columns to, 249-252
modifying, 252-254
publishing forms as, 111-114
controls
adding to forms, 12-13
adding to template parts, 239
Check Box control, 32-33
container controls, types of, 26
custom controls
changing icon of, 246
renaming, 244-245
template parts as, 240-244
date/time entries, 35
dragging onto forms, 26-27
External Item Picker control, 37
hiding/viewing with rules, 46-48
input controls, types of, 24-25
list box controls
multiple selections, 30-32
single selections, 28-30
making required, 43
multiple instances of fields, 40
navigation controls, hiding/viewing, 284-289
object controls
configuring picture buttons, 37-38
types of, 25
Optional Section control, 39
Option Button control, 33-34
Person/Group Picker control, 36
selecting field sets, 41-43
Text Box control
making multiline, 28
making read-only, 27
types of, 24
Convert Existing Form template, 10
converting InfoPath connections to SharePoint connection files, 129-131
count() function, 73-74
counting items, 73-74
current user, finding name of, 66-68
custom controls
changing icon of, 246
renaming, 244-245
template parts as, 240-244
customizing task form (SharePoint workflows), 202-203
custom list pages, creating with InfoPath Form web part, 172-175

custom permission levels, creating, 321-326
custom task pane, creating, 262

D

data
accessing
from BCS (Business Data Connectivity Services), 155-157
populating cascading drop-down lists, 140-145
populating drop-down lists, 138-140
from REST web services, 157-162
from SharePoint connection files, 134-135
from SharePoint lists, 131-133
from SQL Server database, 124-128
from web services, 135-137
displaying from SharePoint lists, 145-154
Database template, 10
Data Connection File template, 10
data connection response site, throttling
in Central Administration, 296-297
in PowerShell, 310
data connection timeouts, throttling
in Central Administration, 296
in PowerShell, 310
data connections
creating, 239
managing in Central Administration, 305
data fields, naming, 14
data integration with InfoPath, 5
data sources
accessing, troubleshooting, 328
secondary data source
accessing, 268-269
looping through, 269
data validation. See validation rules
Date and Time Picker control, 6, 25, 35
date functions, 65-66
Date Picker control, 24, 35
dates, entering, 35
deactivating forms from site collections in PowerShell, 314
default form for SharePoint lists, returning to, 96-98
default view, changing, 80
defaulting blanks to zero, 70-71
dependent drop-down lists. See cascading drop-down lists
deploying forms, troubleshooting, 338-341
designing forms, 11-12
adding controls, 12-13
adding submit options, 15-17
with SharePoint Form Library template, 21
DIP (Document Information Panel), 248
adding columns to, 249-252
modifying, 252-254
displaying
changes counter, 289-290
data from SharePoint lists, 145-148
read-only values, 208-211
repeating tables from SharePoint lists, 149-154
username associated with changes, 290-292
Document Information Panel (DIP), 248
adding columns to, 249-252
modifying, 252-254
Document Information Panel template, 10
document libraries, creating, 248
dragging controls onto forms, 26-27
Drop-Down List control, 24
single selections, 28-30
drop-down lists, populating, 138-145
dynamic sections, configuring, 212-215
dynamically populating repeating tables, 264, 270-274
accessing secondary data source, 268-269

clearing previous entries, 271-272
creating changed event method, 266-267
creating namespace variable, 268
initial form setup, 264-265
looping through secondary data source, 269

E

ease-of-use features (InfoPath 2010), 6
ECT (external content types), 155
editing. See modifying
else-if branches in workflow conditions, 198-199
email, publishing forms to, 103-105
email messages, including links to forms, 189-190
email submission, configuring forms for, 101-103
E-mail template, 10
enabling
forms for submission, 100-101
view state in PowerShell, 313
web service proxies
in Central Administration, 303-305
in PowerShell, 316
exporting source files, 256
exposing
account field in people/group picker control, 200-202
fields as web part parameters with InfoPath Form web part, 175-177
external content types (ECT), 155
external data, accessing
from BCS (Business Data Connectivity Services), 155-157
from REST web services, 157-162
External Item control, 37
External Item Picker control, 6, 25
connections, troubleshooting, 331
extracting source files, 256

F

fields
adding to template parts, 239
entering multiple instances of, 40
exposing as web part parameters with InfoPath Form web part, 175-177
removing all spaces from, 69-70
removing leading and trailing spaces from, 69
selecting field sets, 41-43
File Attachment control, 25
footers, adding to forms, 85
formatting rules for text, 49-51
form libraries
creating from InfoPath, 20-21
creating SharePoint workflows for, 184-188
permissions
creating, 318-319
custom levels, creating, 321-326
troubleshooting, 344
form load rules, 58
form parameters, initiation parameters in SharePoint workflows, 203-205
form submission rules, 55-58
form template parts. See template parts
form templates, browser-enabled form templates in PowerShell, 309
form values, SharePoint workflow actions based on, 193-197
forms (InfoPath). See also workflows (SharePoint)
accessing from within Visual Studio workflow, 256-260
activating to site collection, 303
in PowerShell, 314
advantages of using, 4
confirmation views, configuring, 216-220
controls. See controls
data access. See data, accessing

designing, 11-12
adding controls, 12-13
adding submit options, 15-17
with SharePoint Form Library template, 21
dynamic sections, configuring, 212-215
email submission, configuring, 101-103
enabling for submission, 100-101
exporting source files, 256
extracting source files, 256
four-column table layouts in, 211-212
functions. See functions
headers/footers, adding, 85
including links in email messages, 189-190
InfoPath Form web part, 5, 164
adding to SharePoint web part page, 164, 167
creating custom list pages, 172-175
creating input forms for web parts, 177-181
creating master/detail display forms, 167-169
exposing fields as web part parameters, 175-177
modifying lists, 169-171
layouts, selecting, 83
managing in Central Administration, 302-303
modifying menu buttons during form submission, 120-121
offline access. See SharePoint Workspace
picture buttons in, 224-227
previewing, 13
publishing, 18
as content type, 111-114
to email, 103-105
to SharePoint library, 107-110
quiescing in PowerShell, 315
read-only values, displaying, 208-211
removing in PowerShell, 315
rules. See rules
screen tips for validation rules, 215-216
SharePoint library submission, configuring, 106-107
SharePoint lists
creating, 90-94
modifying forms, 95-96
returning to default form, 96-98
SharePoint Server connection submission, configuring, 117-119
submitting, 18-19
tabbed navigation, creating, 220-223
table layouts
inserting, 86
modifying, 86
template options, 10
themes, selecting, 84
tracking changes, 276
adding changed event code, 278-283
applying rich text, 283-284
displaying changes counter, 289-290
displaying username associated with changes, 290-292
hiding/viewing navigation controls, 284-289
initial form setup, 276-278
troubleshooting
administrator-approved forms, 340
browser-enabled forms, 339
data source access, 328
external item picker connections, 331
form library read-only permissions, 344
form loading error, 335-336
form name errors, 345-346
List/Library ribbon, 332-333
sandboxed solutions, 341
security settings, 336
SQL credentials, 329

starting Business Data Connectivity Service, 330
submission errors, 344
task list creation error, 333-334
URL errors, 338
VSTA installation, 334-335
web service submission errors, 346-347
uploading
in Central Administration, 299-301
multiple in PowerShell, 314
verifying and uploading in PowerShell, 313
views
changing default, 80
changing name of, 78
creating, 79
making read-only, 81
preventing selection of, 82
print view, 83
web controls and web parts versus, 5
web service submission, configuring, 115-117
in workflows, advantages of, 5
four-column table layouts in forms, 211-212
functions, 64
calculating sums, 71-73
counting items, 73-74
date functions, 65-66
defaulting blanks to zero, 70-71
portions of strings, 74-75
removing all spaces, 69-70
removing leading and trailing spaces, 69
URL functions, 64-65
userName() function, 66-68

G

granting user permissions, 319-320
group permissions, editing, 323-324

H

headers, adding to forms, 85
hiding
controls with rules, 46-48
menu buttons during form submission, 120-121
navigation controls, 284-289
Hyperlink control, 6, 25

I

icons of custom controls, changing, 246
InfoPath 2010
adding template parts to, 240-243
add-ins, creating, 260-261
creating form libraries, 20-21
data integration, 5
ease-of-use features, 6
installing, 7
lists and, 4
new controls, 6
InfoPath connections. See also data, accessing
configuring, 125-128
converting to SharePoint connection files, 129-131
creating to SharePoint connection files, 134-135
InfoPath Form Services
administration. See Central Administration; PowerShell
enabling web service proxies, 316
options, accessing in Central Administration, 294

quiescing forms, 315
removing forms from, 315
uploading forms, 299-301
InfoPath Form web part, 5, 164
adding to SharePoint web part page, 164, 167
creating custom list pages, 172-175
creating input forms for web parts, 177-181
creating master/detail display forms, 167-169
exposing fields as web part parameters, 175-177
modifying lists, 169-171
InfoPath forms. See forms (InfoPath)
initiation form parameters in SharePoint workflows, 203-205
input controls, types of, 24-25
input forms, creating for web parts, 177-181
inserting table layouts, 86
installing
InfoPath 2010, 7
VSTA, 334-335
integration of data with InfoPath, 5

L

Layout bar, 78
layouts
selecting, 83
table layouts
inserting, 86
modifying, 86
leading spaces, removing, 69
links, including in email messages, 189-190
List Box control, 25
multiple selections, 30-32
single selections, 28-30
List/Library ribbon, troubleshooting, 332-333
lists (SharePoint). See also drop-down lists
accessing data from, 131-133
creating custom list pages with InfoPath Form web part, 172-175
creating list items offline, 233
creating master/detail display forms for, 167-169
creating with forms, 90-94
displaying data from, 145-148
displaying repeating tables from, 149-154
editing list items offline, 232-233
InfoPath and, 4
modifying forms for, 95-96
modifying with InfoPath Form web part, 169-171
returning to default form, 96-98
synchronizing with SharePoint Workspace, 230-231, 234-235
viewing offline, 231-232
List URL, 64
loading forms
rules for, 58
troubleshooting, 335-336
local data link file, creating, 124-125
looping through secondary data source, 269

M

managing
data connections in Central Administration, 305
form templates in Central Administration, 302-303
master/detail display forms, creating, 167-169
menu buttons, modifying during form submission, 120-121
Microsoft InfoPath Designer 2010, 7
Microsoft InfoPath Filler 2010, 7
Microsoft Office Professional Plus 2010, 7

modifying. See also changing
authentication settings
in Central Administration, 297-298
in PowerShell, 311
DIP (Document Information Panel), 252-254
forms for SharePoint lists, 95-96
group permissions, 323-324
list items offline, 232-233
lists with InfoPath Form web part, 169-171
menu buttons during form submission, 120-121
table layouts, 86
multiline Text Box controls, 28
multiple field instances, entering, 40
multiple forms in SharePoint libraries, 111-114
multiple form templates, uploading in PowerShell, 314
multiple options with Option Button control, 33-34
Multiple-Selection List Box control, 25
multiple selections from list box controls, 30-32
myschema.xsd file, 257

N

names of forms, troubleshooting, 345-346
names of views, changing, 78
namespace variable, creating, 268
naming data fields, 14
navigation, creating tabbed navigation, 220-223
navigation controls, hiding/viewing, 284-289
normalize-space() function, 69
Numbered List control, 25
nz() function, 70-71

O

object controls
configuring picture buttons, 37-38
types of, 25
offline form access. See SharePoint Workspace
Optional Section control, 26, 39
configuring, 212-215
optional single choices with Check Box control, 32-33
Option Button control, 24, 33-34
options, picture buttons as, 224-227

P

Page Design bar, 78
page layouts. See layouts
parameters
exposing fields as with InfoPath Form web part, 175-177
initiation form parameters in SharePoint workflows, 203-205
path errors, troubleshooting, 338
patterns with validation rules, 59-61
permissions
on form libraries
creating, 318-319
custom levels, creating, 321-326
troubleshooting, 344
for groups, editing, 323-324
for users, granting, 319-320
Person/Group Picker control, 6, 25, 36
exposing account field in, 200-202
Picture Button control, 6, 25
configuring, 37-38
in forms, 224-227
Picture control, 25
Plain List control, 25

populating
cascading drop-down lists, 140-145
drop-down lists, 138-140
repeating tables, 264, 270-274
accessing secondary data source, 268-269
clearing previous entries, 271-272
creating changed event method, 266-267
creating namespace variable, 268
initial form setup, 264-265
looping through secondary data source, 269
PowerShell
accessing SharePoint 2010 Management Shell, 308-309
activating forms to site collections, 314
browser-enabled form templates, 309
configuring session state, 312
enabling view state, 313
enabling web service proxies, 316
modifying authentication settings, 311
quiescing forms, 315
removing forms, 315
throttling data connection response sizes, 310
throttling data connection timeouts, 310
uploading multiple form templates, 314
verifying and uploading form templates, 313
preventing view selection, 82
previewing forms, 13
previous table entries, clearing, 271-272
print view, 83
publishing forms, 18
as content type, 111-114
to email, 103-105
to SharePoint library, 107-110
troubleshooting, 338-341

Q

quick-publish functionality, 6
quick-rules functionality, 6
quiescing forms in PowerShell, 315

R

read-only permissions, troubleshooting, 344
read-only Text Box controls, 27
read-only values, displaying, 208-211
read-only views, 81
removing
all spaces, 69-70
forms in PowerShell, 315
leading and trailing spaces, 69
renaming custom controls, 244-245
Repeating Section control, 26, 40
Repeating Table control, 26, 40
repeating tables
displaying from SharePoint lists, 149-154
dynamically populating, 264, 270-274
accessing secondary data source, 268-269
clearing previous entries, 271-272
creating changed event method, 266-267
creating namespace variable, 268
initial form setup, 264-265
looping through secondary data source, 269
required controls, 43
requirements for InfoPath 2010 installation, 7
REST web services, accessing external data from, 157-162
rich text, applying, 283-284
Rich Text Box control, 24
rules, 46
action rules, adding to buttons, 54-55
for form loading, 58

for form submission, 55-58
formatting entries, 49-51
hiding/viewing controls, 46-48
validation rules, 52-53
with patterns, 59-61

S

sandboxed solutions, troubleshooting, 341
saving template parts, 240
screen tips for validation rules, 215-216
secondary data source
accessing, 268-269
looping through, 269
Section control, 26
security settings, troubleshooting, 336
selecting
from check box controls, 32-33
from external content types, 37
field sets, 41-43
from list box controls
multiple selections, 30-32
single selections, 28-30
from options button controls, 33-34
layouts, 83
people, 36
themes, 84
views, preventing selection, 82
Server Root URL, 64
session state, configuring
in Central Administration, 298-299
in PowerShell, 312
SharePoint 2010 Central Administration. See Central Administration
SharePoint 2010 Management Shell, accessing, 308-309
SharePoint connection files
converting InfoPath connections to, 129-131
creating InfoPath connections to, 134-135
SharePoint Form Library template, 10, 21
SharePoint forms. See forms (InfoPath)
SharePoint library
configuring forms for submission, 106-107
publishing forms to, 107-110
as content types, 111-114
SharePoint lists. See lists (SharePoint)
SharePoint List template, 10
SharePoint Server connection submission, configuring forms for, 117-119
SharePoint URL functions, 64-65
SharePoint web part page, adding InfoPath Form web part to, 164, 167
SharePoint workflows. See workflows (SharePoint)
SharePoint Workspace
creating list items offline, 233
editing list items offline, 232-233
synchronizing with, 230-231, 234-235
viewing lists offline, 231-232
single selections from list box controls, 28-30
site collections, activating forms to, 303
in PowerShell, 314
Site Collection URL, 64
Site URL, 64
SOAP-based web services, accessing data from, 135-137
source files
exporting, 256
extracting, 256
spaces, removing from fields, 69-70
SQL credentials, troubleshooting, 329
SQL Server database, accessing data from, 124-128
starting Business Data Connectivity Service, 330
string-length() function, 75
strings, portions of, 74-75
submit-only permissions, creating, 325-326
submit options, adding to forms, 15-17

submitting forms, 18-19
configuring
for email submission, 101-103
for SharePoint library submission, 106-107
for SharePoint Server connection submission, 117-119
for web service submission, 115-117
enabling for submission, 100-101
modifying menu buttons during submission, 120-121
rules for, 55-58
troubleshooting, 344-347
verifying successful submission, 216-220
substring-after() function, 75
substring-before() function, 75
substring() function, 74-75
successful form submission, verifying, 216-220
sum() function, 71-73
sums, calculating, 71-73
synchronizing with SharePoint Workspace, 230-231, 234-235

T

tabbed navigation, creating, 220-223
table layouts
inserting, 86
modifying, 86
tables
four-column table layouts in forms, 211-212
repeating tables
displaying from SharePoint lists, 149-154
dynamically populating, 264-274
task form (SharePoint workflows), customizing, 202-203
task list creation error, troubleshooting, 333-334
task pane, creating custom, 262
tasks, adding to SharePoint workflows, 190-192
template options for forms, 10
template parts
controls, adding, 239
creating, 238
as custom controls, 240-244
data connections, adding, 239
fields, adding, 239
saving, 240
templates
browser-enabled form templates
in Central Administration, 295
in PowerShell, 309
form templates
uploading multiple in PowerShell, 314
verifying and uploading in PowerShell, 313
managing in Central Administration, 302-303
uploading in Central Administration, 299-301
text
formatting rules for, 49-51
rich text, applying, 283-284
validating, 52-53
with patterns, 59-61
Text Box control, 24
making multiline, 28
making read-only, 27
themes, selecting, 84
throttling
data connection response sizes
in Central Administration, 296-297
in PowerShell, 310
data connection timeouts
in Central Administration, 296
in PowerShell, 310

timeouts, throttling
in Central Administration, 296
in PowerShell, 310
times, entering, 35
today() function, 66
To Email submit option, 15
To SharePoint Library submit option, 15
To SharePoint Server Connection submit option, 15
To Web Service submit option, 15
tracking changes, 276
adding changed event code, 278-283
applying rich text, 283-284
displaying changes counter, 289-290
displaying username associated with changes, 290-292
hiding/viewing navigation controls, 284-289
initial form setup, 276-278
trailing spaces, removing, 69
translate() function, 69-70
troubleshooting forms
administrator-approved forms, 340
browser-enabled forms, 339
data source access, 328
external item picker connections, 331
form library read-only permissions, 344
form loading error, 335-336
form name errors, 345-346
List/Library ribbon, 332-333
sandboxed solutions, 341
security settings, 336
SQL credentials, 329
starting Business Data Connectivity Service, 330
submission errors, 344
task list creation error, 333-334
URL errors, 338
VSTA installation, 334-335
web service submission errors, 346-347

U

uploading form templates
in Central Administration, 299-301
in PowerShell, 313-314
URL errors, troubleshooting, 338
URL functions, 64-65
userName() function, 66-68
usernames associated with changes, displaying, 290-292
users
obtaining from people/group picker control, 200-202
permissions, granting, 319-320

V

validation rules, 52-53
with patterns, 59-61
screen tips for, 215-216
variables, creating namespace variable, 268
verifying
form templates in PowerShell, 313
successful form submission, 216-220
viewing
controls with rules, 46-48
lists offline, 231-232
navigation controls, 284-289
views
changing default, 80
changing name of, 78
creating, 79
making read-only, 81
preventing selection of, 82
print view, 83
view state, enabling in PowerShell, 313
Visual Studio 2010
creating custom task pane, 262
creating InfoPath 2010 add-ins, 260-261

Visual Studio workflows, accessing forms within, 256-260

VSTA (Visual Studio Tools for Applications), installing, 334-335

W

web controls, forms versus, 5

web parts

- forms versus, 5
- InfoPath Form web part, 5, 164
  - adding to SharePoint web part page, 164, 167
  - creating custom list pages, 172-175
  - creating input forms for web parts, 177-181
  - creating master/detail display forms, 167-169
  - exposing fields as web part parameters, 175-177
  - modifying lists, 169-171

web service proxies, enabling

- in Central Administration, 303-305
- in PowerShell, 316

web services

- accessing data from, 135-137
- REST web services, accessing external data from, 157-162

web service submission

- configuring forms for, 115-117
- troubleshooting, 346-347

Web Service template, 10

workflows (SharePoint)

- adding tasks to, 190-192
- conditions in, 193-197
  - else-if branches in, 198-199
- creating for form libraries, 184-188
- customizing task form, 202-203
- forms in, advantages of, 5
- including links in email messages, 189-190
- initiation form parameters in, 203-205
- people/group picker control, exposing account field in, 200-202

workflows (Visual Studio), accessing forms within, 256-260

X

XML or Schema template, 10

Z

zero, defaulting blanks to, 70-71

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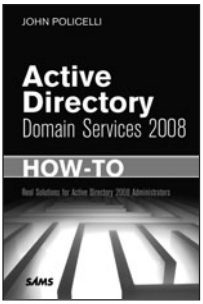

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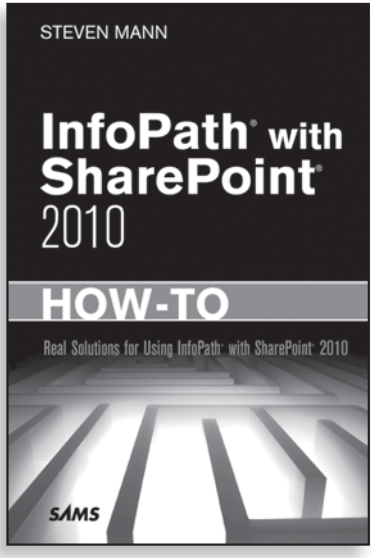

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