Introduction to InfoPath 2003

Written by Jon Agnone

Center for Social Science Computation & Research
145 Savery Hall
University of Washington
Seattle WA 98195 U.S.A.
(206)543-8110

September 2004
INTRODUCTION TO INFOPATH 2003

Microsoft Office InfoPath 2003 is a new program that streamlines the process of gathering, using, and sharing information through rich, dynamic business forms. InfoPath enables teams and organizations to:

- Gather information more efficiently and accurately with the aid of easy to create XML forms with the ability to prevent data entry errors
- Share information across business processes within an organization by placing created forms in shared directories on local network drives
- Gather information by linking InfoPath forms to web-based data collection mechanisms that collect and organize the submitted information into a database

Working with InfoPath
When you first launch IP, the workspace for filling out forms is shown. However, you can easily switch between this and design mode with ease. If you’re already familiar with other programs in the MS Office suite, you’ll recognize many common features and commands.

A snapshot of the InfoPath window is shown below. If you’ve worked with other Microsoft Office products such as Word or Excel, you should be familiar with the basic features and commands, such as the menu bar, formatting bar, and standard shortcut bar.

As stated above, InfoPath offers two separate modes that are tailored to two distinct tasks—filling out forms and designing forms.
Each mode can be accessed from the File Menu, shown below.

**FILLING OUT FORMS**
When you first launch IP, the workspace for filling out forms is shown. That said, we will first discuss how to work with an already existing form.

**Entering Data In a Form**
When you open a form, click the fields that you want to fill out, or use the **TAB** key on your keyboard to quickly move from one field to the next.
You can enter information by typing text, using drop-down lists, selecting check boxes and option buttons, or using other controls such as a date picker. One of the default sample forms in InfoPath is shown below. As you can see, data can easily be entered into the different fields by either clicking on the cell as well as “tabbing” to each consecutive data entry cell.

Formatting Data
Unlike paper and Web forms, InfoPath 2003 lets you format the information you enter much like you would in a word processor. Depending on how the form was designed, you can use rich text formatting for emphasis, insert hyperlinks and images, and add borders and shading as needed. For example, the form shown below allows the user such customizability.

Also, since InfoPath is a part of the Microsoft Office suite, you can rely on familiar features such as spelling checker, finding and replacing text, and AutoComplete.
Adding Optional Information
Depending on their design, you can customize forms that you fill out by inserting optional sections—areas included with the form that aren’t shown by default.

For example, in a Status Report form, salaried employees may fill out just the basic parts of the form, whereas hourly employees might include an optional Time Report Section as part of their report.

Entering Rows in a Table
Unlike paper forms, which always have too few or too many blank lines to fill in for a series of related items, InfoPath 2003 forms allow you to insert and delete rows to create a table that has the exact number of entries you need.

When filling out an Expense Report form, for example, you can add additional table rows as needed, for all repeating items such as the daily meal during a business trip.

Checking for Errors
Depending on their design, most InfoPath 2003 forms automatically check the information you enter and display error messages or inline alerts to bring required fields, questionable entries, or invalid data to your attention.

For example, if you entered an amount in your Expense Report form that exceeds the maximum your company allows for expense reimbursement, the form would reject the entry.

You can right-click inline alerts to get more information, or use the commands on the **TOOLS** menus to review all errors and correct them before saving your form.

Using Form Data
After saving the forms you’ve filled out, you can send them out for review or approval by submitting them to a server or using an email program such as Outlook. If you have Excel installed on your computer, you can export the form data you’ve entered to an Excel spreadsheet to analyze or chart the data.

InfoPath 2003 also lets you select multiple saved forms and merge their data to one combined form. This is especially useful for rolling up individual forms, such as status or sales reports from several members in a group, into one.
DESIGNING FORMS
The other mode in InfoPath is the design mode, which allows the user to create fully customizable forms. There are several ways to create a new form:

- Start with a blank form that you can design to meet your needs
- Open and customize any of the ready-to-use sample forms included with InfoPath
- Point to an existing data source—be it an XML Schema, a MS Office Access or SQL Server database, or a Web service—and create a form based on its structure

Whether you choose to customize an existing form or start with a blank document, the functionality within the design mode is the same. The main constructive tasks are compartmentalized within the **Design Tasks** toolbar.

Clicking on each any of the design tasks bring up separate task specific windows that help you organize and construct your new form.
Laying out a form
The best way to create a new form is to begin with layout tables, which provide an easy way to arrange and align the text, fields, controls and sections of your form.

The **Layout** task pane provides useful selection of layout tables and sections that you can place on the form.

Adding and Formatting Text
When designing a new form, you can type text anywhere you want. Use descriptive text to label fields and controls, describe sections of the form, or provide instructions for users who will fill out the finished form.

You can use text formatting for emphasis, insert hyperlinks and images, add borders and shading to sections and tables, and apply color schemes to give your form a professional look.
Adding Functionality with Controls
Your form won’t have true functionality until you add controls—user interface objects such as text fields, check boxes, drop-down lists, and option buttons that control data entry, or let users make choices and perform actions.

The Controls task pane provides easy access to all of the types of controls that you can insert into your form and allows you to simply drag them onto the form layout. Once placed, you can view and change the properties of a control, or change it from one type of control to another.

Using optional sections
InfoPath provides additional controls that you can use when designing new forms. These controls serve as containers that hold standard controls in order to give users greater flexibility when filling out your form.

One such control is an optional section which doesn’t appear in the form unless a user chooses to add it. For example, only those employees that incur personal entertainment expenses during a business trip might add the optional Notes section to their Expense Report form. They could then type an explanation into this section to justify their personal expenses.

Using expanding tables
Another type of control you can use in your form is a repeating table. You can use these containers to let users expand sections of a form when it is filled out, displaying only the necessary number of entries in a series, such as the line-by-line entries in an Expense Report form.

Previewing your form
To test the layout of your form, and the placement and functionality of controls, you can use the Preview Form command to view your form in a separate window as it would appear to users filling it out. You can check the formatting and alignment of fields and labels, and try out controls and sections with sample data.
Verifying data binding
In design mode, the binding controls in your form is communicated with icons and descriptions that appear when you move the pointer over controls. These visuals provide information about a control’s association with the data source. They also point out any problems with invalid data associations.

A data source is a collection of fields that define and store a form’s data. InfoPath automatically creates an XML data source when create a new, blank form and add controls. You can use the Data Source task pane to view the structure of your XML Schema, and show and hide details for each of the fields and groups.

Using data error checking
You can design your forms so that InfoPath automatically checks the information that users enter, and provides feedback to bring possible problems or mistakes to their attention.

For example, you can add data validation to your forms to designate required fields or to make sure users only enter certain types of information into certain fields. You can choose to display error messages in dialog boxes or use inline alerts such as ScreenTips.

Using conditional data formatting
Similar to data validation, conditional formatting allows you to define formatting rules for your controls that provide visual feedback to users when they enter data that matches certain criteria.

For example, you can specify red text formatting for any negative dollar amounts that are entered into an Expense Report form.

It’s a good idea to preview your form in design mode, to test data validation or conditional formatting that you’ve added to your form design.

Publishing a form
While you can save your design work to your local hard drive at any time, you must publish your finished forms to a shared location in order to make them available to other users.

The InfoPath Publishing Wizard guides you through the necessary steps to distribute your forms. You can publish custom forms to a shared folder on your computer or company network, to a Microsoft Windows SharePoint Services site, or to your Web server.

[Please note, however, that additional work is necessary to being able to have a fully functional form that collects web-based data.]

Additional Resources
Additional insight and help can be located in the following locations:

- InfoPath 2003 Help (hit F1)
- InfoPath Programming References
- Online training via Microsoft Online