Microsoft Office for the Pharmaceutical and Healthcare Industries

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It is likely that you and your colleagues are currently using a version of Microsoft Office at work or at home. It also is likely that many of you make use of only a small proportion of the features available, since it has become well known that most of us learn the minimum amount of features necessary to do our jobs. Accordingly, when Microsoft planned the 2003 release of Microsoft Office System our strategy was not to simply add a bunch of new features that the IT staff would find exciting but most professionals would never use. Instead, the product teams spent time talking with industry leaders to learn how Microsoft Office can truly alleviate the pains that plague professionals in various industries. The healthcare and pharmaceutical industries were specifically targeted so that the 2003 release of Microsoft Office System would be a platform that enables professionals to improve productivity, build integrated applications, foster collaboration, and be innovative.

There are several common complaints in the healthcare and pharmaceutical industries that the Microsoft Office can address. First, the cost of healthcare and drug development has skyrocketed. Everyone is asked to "do more with less," which translates into seeing more patients each day, applying for more grants, writing more standard operating procedures (SOPs), processing more claims, and recruiting more patients for clinical trials. Packing more work into the day can mean working longer hours, but it also requires all of us to become more efficient in what we do and look for ways to better manage our time.

Another common complaint voiced by healthcare and pharmaceutical professionals is the high turnover among some staff. Healthcare workers are spending too much time engaged in activities that are not direct patient care. A HIMSS survey published in May 2003 indicated that technology would have a "great deal" of impact on staffing shortages. High rates of staff turnover are noted within the pharmaceutical industry among clinical research associates, and of course, this adds to the overall costs of running clinical trials. Electronic methods to store information and communicate with other professionals can not only make it easier to train new staff, but they also may lead to less attrition in the first place.

Difficulty with finding, storing, and communicating information is a third complaint voiced by healthcare and pharmaceutical professionals. The average hospital has more than 200 information systems such as admissions, radiology, pathology, pharmacy, and surgery that typically do not communicate with each other. Most of the software used to facilitate clinical trials is not integrated. Claims processing often involves re-keying data over and over. Professionals too often rely on their own hard-drives for storing critical documents, and sensitive information is passed back and forth via e-mail with the hope that it somehow remains secure.

Finally, there is mounting pressures for healthcare and pharmaceutical companies to comply with regulations such as those presented by HIPAA, 21 CFR Part 11, and JCAHO. In some cases, such regulations require complete overhauls of processes and systems. Yet at the same time, quality patient care must be maintained.

As a result, healthcare and pharmaceutical professionals bear the following burdens: doing more with less, picking up the slack that result from high staff turnover, navigating between disconnected systems, and complying with the plethora of governmental and agency regulations. These are some heavy burdens, which can result in long work days, feelings of disconnectedness, citations from regulatory bodies, and most importantly, reduced quality of care for patients. There is no panacea that can magically ease all the burdens and improve patient care. However, it is these issues that the product managers had in mind when designing the new Microsoft Office System.

The 2003 release of Microsoft Office is a system, rather than simply a conglomeration of features. It is now a platform to enable higher rates of productivity, collaboration between teams and across organizations, connections to back-end systems, the use of third-party software add-ons, and building internal applications. Although there still was attention paid to personal productivity, the Microsoft product managers took a new approach: the applications in the 2003 release of the Microsoft Office System were designed to easily interact with one another, other Microsoft applications, and even many of your legacy systems. This means that the Microsoft Office System will not only assist you in improving personal productivity, but it can revolutionize how team members collaborate and how your organization does business. "Revolutionize" is a strong word, but it is appropriate, since the changes in the 2003 release of the Microsoft Office System are far-reaching and forward-thinking.

This paper will be organized in four main sections: personal impact, business information, effective teaming, and process management, which includes security and compliance with industry regulations. Saving time and increasing each professional's ability to make significant contributions, given the increasingly demanding business environment will be discussed first, and this discussion does involve highlighting some new features in Outlook and Word. Although you just read above how the Microsoft Office System is a "system" and not "simply a conglomeration of features," there are several new features that are worth describing.

How the Microsoft Office System is a platform will become apparent in the sections about business information and effective teaming, which are followed by an in-depth discussion of Information Rights Management. The final section builds on all of the previous ones by presenting how the Microsoft Office System can help improve your organization's ability to respond to the demands of a market that is frequently changing and has ever-increasing numbers of regulations.

Personal Impact: Save Time and Increase Personal Productivity

Microsoft Office Outlook 2003

The advances of technology have afforded healthcare and pharmaceutical workers with the ability to receive information from an abundance of sources, anywhere, anytime. Now, information can pour in from e-mail messages, cellular telephone calls, pagers, and personal digital assistants (PDAs). This is how we do business today.

Yet, this wealth of easily accessible information can at times feel burdensome, so it is imperative that we find efficient ways to plow through it all. The average information worker (which all of us are), spends up to 30% of time each day reading e-mail messages, and many of us end up with hundreds or thousands of messages in our Inboxes. Finding efficiencies with managing e-mail is critical to staying up-to-date and on top of our work.

All E-Mail Accounts in One Location with a New Viewing Pane

Since many healthcare and pharmaceutical professionals can get buried under a mountain of e-mail each day, the 2003 release of Outlook was designed to increase personal productivity and save time by enabling professionals to view all e-mail accounts in one view, sort mail by threaded conversation, assign follow-up flags with a single click, glance at

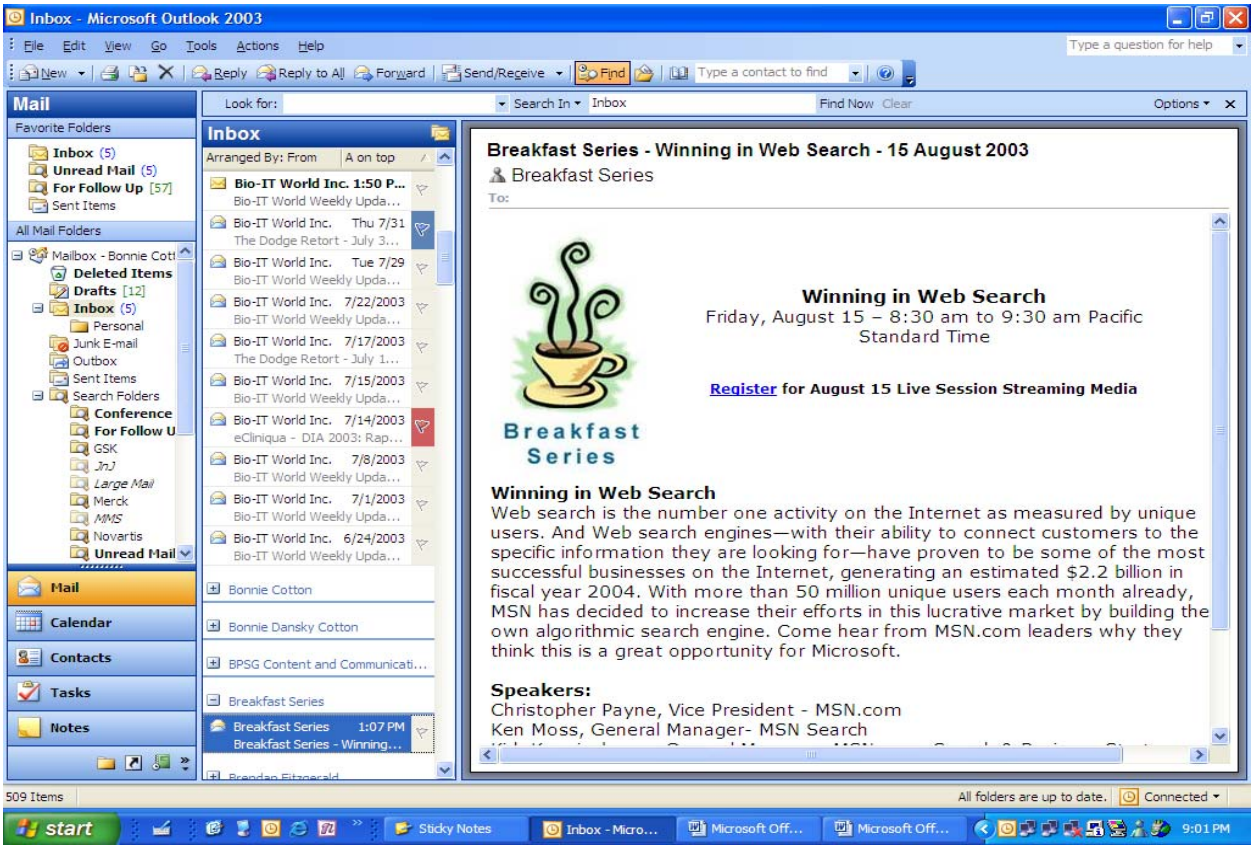
incoming mail message alerts and grasp critical information, and view multiple calendars at the same time. Let's start with viewing email from multiple accounts. This means that e-mail from any account – MSN, Hotmail, other personal or other professional accounts -- can be viewed in place. You no longer need to open multiple e-mail applications in order to view your messages. Additionally, the default viewing pane is on the right side (rather than at the bottom of the page) and is large enough that clicking to open a message is rarely necessary. Attachments can be easily accessed directly from the reading pane.

View Threaded Conversations

Back and forth "threads" of e-mail messages can be viewed by conversation. So when several people are collaborating on a manuscript, grant application, or New Drug Application (NDA), all messages that pertain to the topic can be grouped together. Grouping also can be accomplished by creating "virtual" search folders, where new messages that arrive on a particular topic are available in a virtual subfolder, as well as in the Inbox.

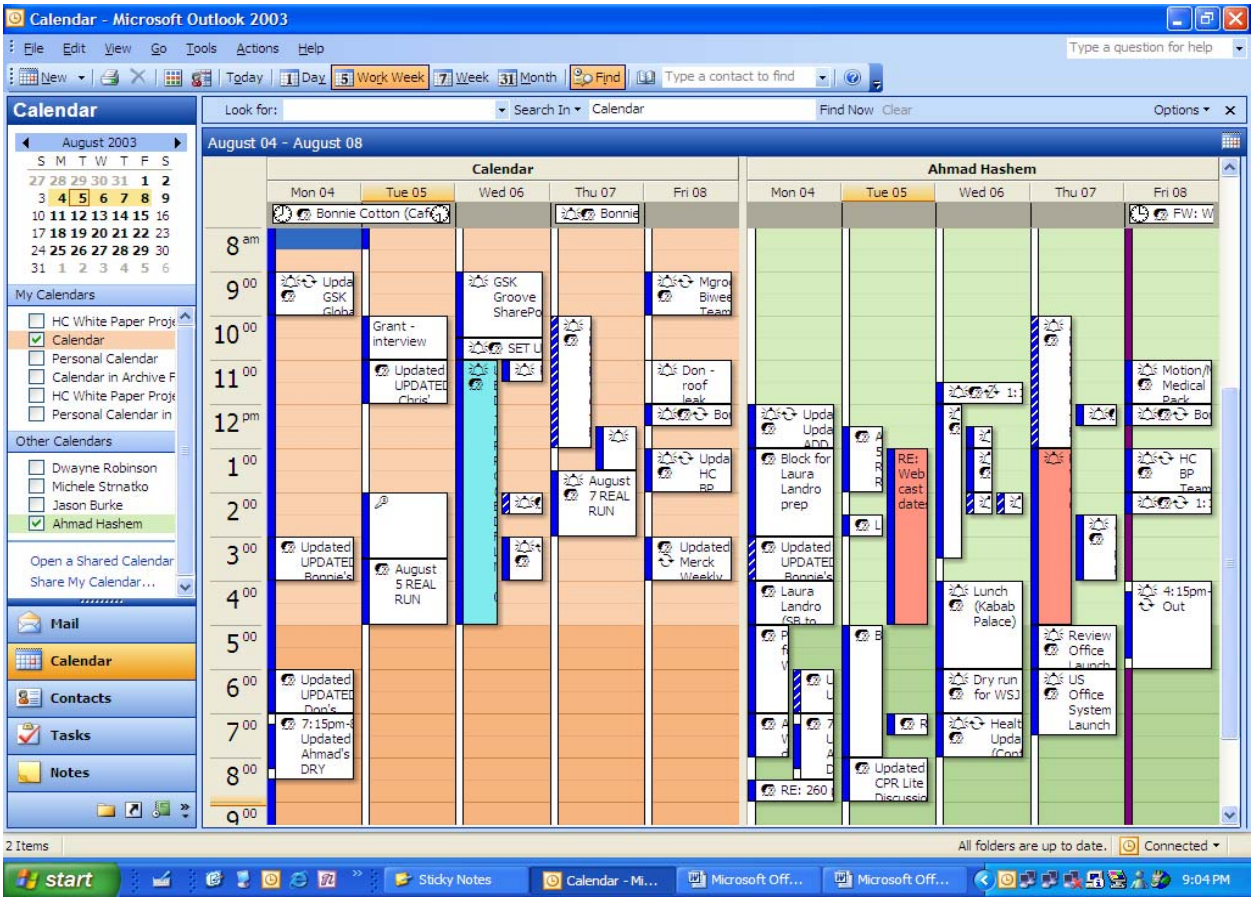
Follow-Up with Quick Flags

Quick flags are available to assist with finding messages that require follow-up. The flags are easier to see than before, they come in a variety of colors, and flagged messages are automatically placed in a single "For Follow-Up" virtual folder, no matter where the messages actually reside (i.e., in the Inbox or other subfolders). With a single click a message can be flagged, and with another click all messages that require follow-up can be viewed. The image below depicts the new reading pane and quick flags.



Shared Calendars

Scheduling appointments with colleagues or for several practitioners at the same time can be accomplished by selecting to "Open a Shared Calendar" and choosing names. For instance, a scheduling manager in a physician's office can view the calendars for all of the physicians in the practice at the same time in one view. This way, he can effortlessly identify a time for an office meeting or provide appointment options to patients without having to toggle between multiple calendars. All of these new features in Outlook were designed to enable the busy healthcare or pharmaceutical professional to work more efficiently and increase productivity.



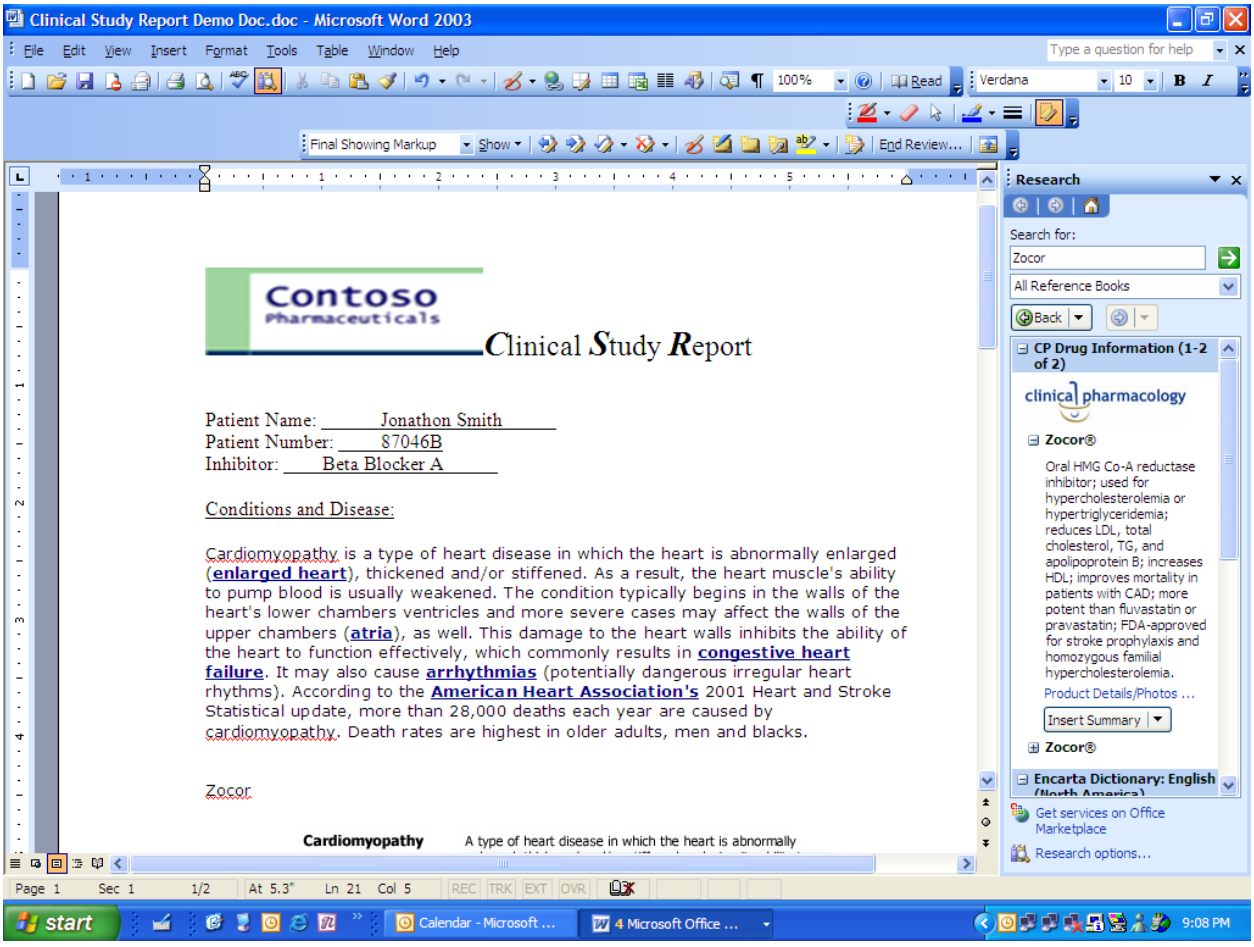
Microsoft Office Word 2003

Personal productivity also can be increased with other applications in the Microsoft Office System. The new features in Microsoft® Office Word 2003 are specifically geared toward professionals such as the scientist or healthcare practitioner. First of all, the view in Word has been updated to reflect the finding that people read more comfortably when the number of characters in a line is between 50 and 70 – similar to how text is presented in a book or journal article. Consequently, the vast amount of reading that healthcare professionals do can be accomplished more quickly and comfortably.

Research Pane

The Research Pane is an addition to Microsoft Office that healthcare and pharmaceutical professionals will find particularly helpful. Here is where you will begin to see how the Microsoft Office System is a platform for providing professionals with the tools necessary to do their jobs more efficiently. With the Research Pane, research can be conducted from within a Word 2003 document by simply holding the Alt key and clicking on a word in the document. It is no longer necessary to open a browser or new window to search for information.

If a scientist is writing a paper on a topic such as cardiomyopathy, she can conduct literature searches on the Web from within her manuscript, as well as access a medical dictionary. Since translation of foreign language text can be accomplished with a single click in the Research Task Pane, the scientist also can utilize scientific findings published in languages besides English. In the image below a clinician is utilizing the Research Pane to acquire information about Zocor. You can see that she is accessing information from the CP Drug Information database (a third-party add-on) about Zocor.

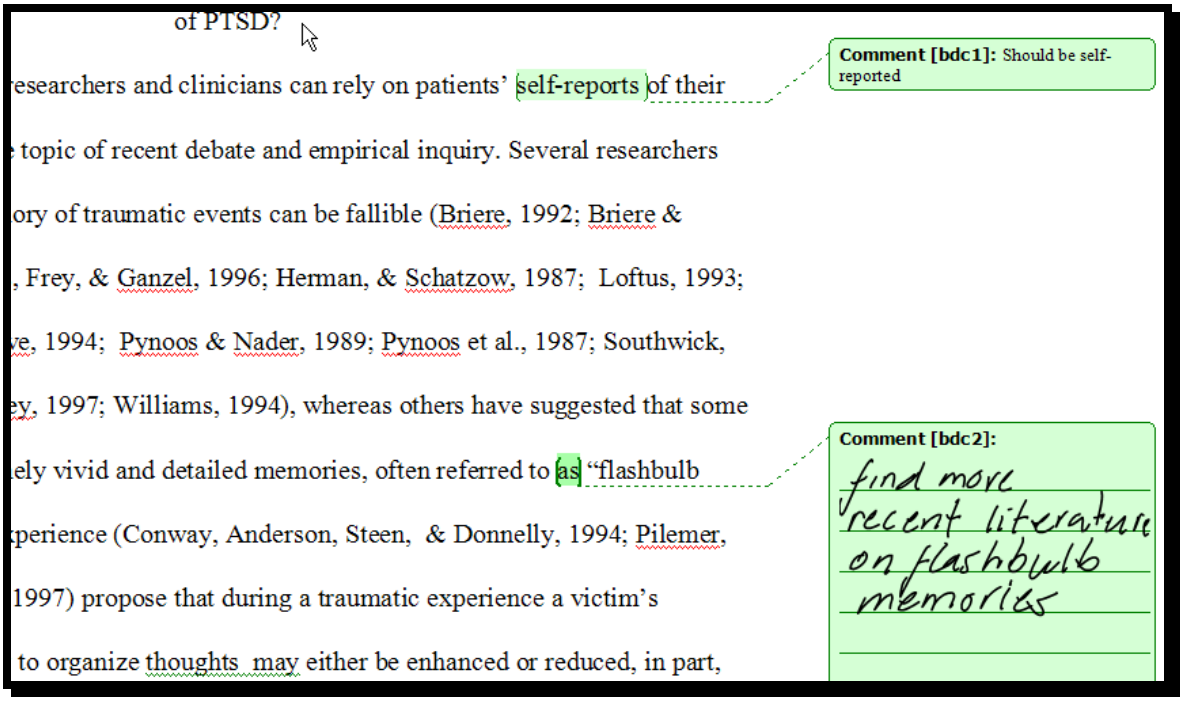


Business Information: Greater Visibility for Make Better Decision Making

Making good decisions and taking effective action are highly dependent on having access to pertinent information. Such information is available in a variety of ways. It can be in the form of a Word document, or it can be data entered into a form to be stored in a database. Information also is available from databases to populate forms, and finally there are look-ups and mouse-overs. These methods of accessing information are available in Word 2003, a new application called "InfoPath," as Smart Tags, and as Smart Documents. Although using Smart Tags and Smart Documents often requires a bit of assistance from your IT team or a third-party vendor, healthcare and pharmaceutical professionals can utilize the power of Microsoft Office Word 2003 and Microsoft Office InfoPath™ 2003 right "out of the box" to gain better visibility into patient, scientific, marketing, and sales information.

Document Collaboration within Microsoft Office Word 2003

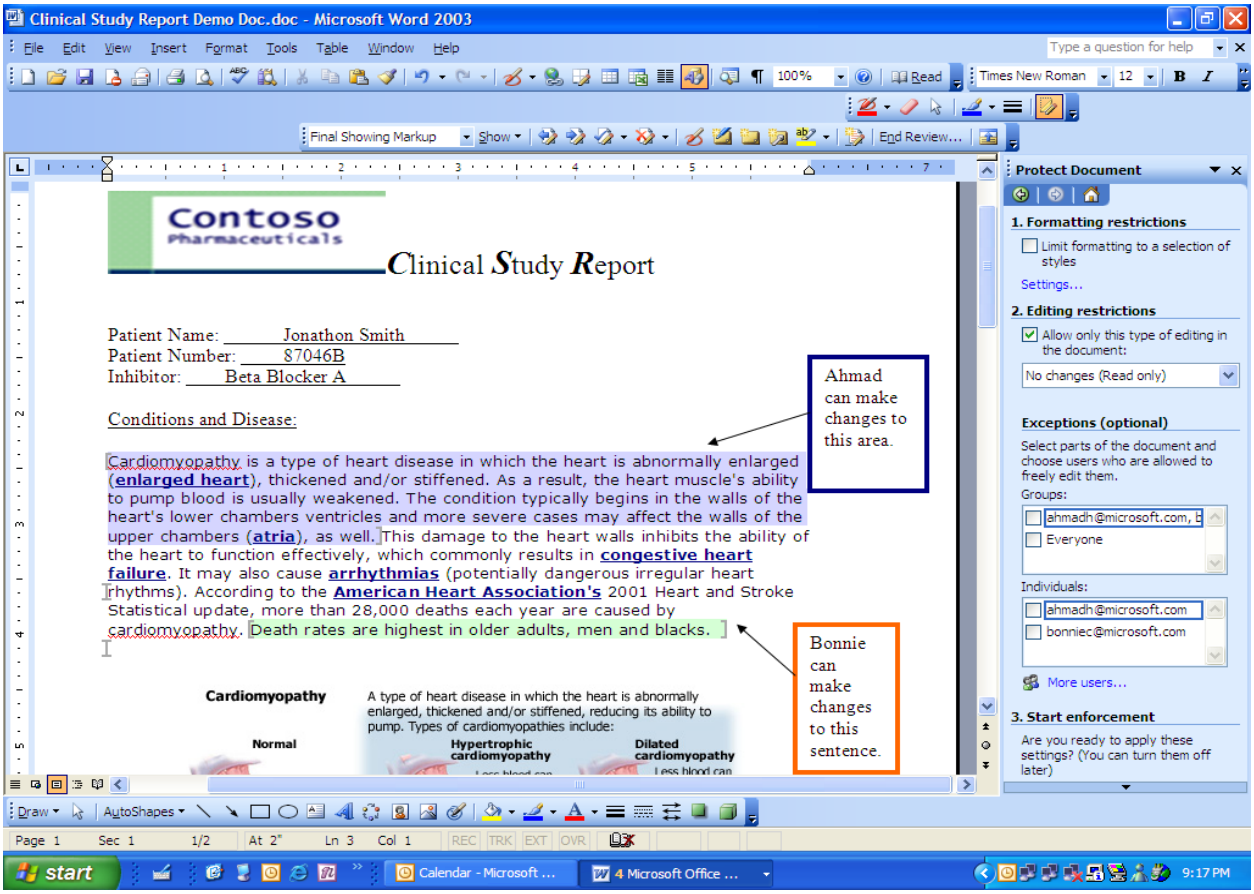
Document collaboration can be readily achieved with improved document tracking in Microsoft Office Word 2003. Comments created in Word 2002 are displayed in bubbles in the right margin, rather than in a bottom window pane. In the 2003 release, this feature was enhanced to enable Tablet PC users the ability to add comments in ink. This way, hand-written and/or typed comments are easily seen in bubbles on the right margin of the document.



Collaboration also is made easier with the addition of within document e-mail creation. Now, a document such as a patient intake report can be sent to a colleague from within Word 2003 by clicking "File" and "Send To." Once again, you can see how the Microsoft Office System is a platform to enable communication and collaboration. Similarly, faxes can be sent directly from within Word, Excel, or PowerPoint via the Office Marketplace Web site.

Although getting up from your desk and walking to the office fax machine is a good health practice, it is no longer necessary with the Microsoft Office System.

Word Document Protection is a powerful method of preventing accidental deletions or changes made by members of your team. It is now possible to create individually-tailored editing permissions down to the level of a single word. You can make a document Read Only, specify which sections can be edited by whom, or limit formatting.



Before and After Microsoft Office Word 2003

Before Microsoft Office Word 2003

Drs. Newman, Young, and Zimmerman are collaborating on a manuscript that has been accepted for publication in the next issue of a scientific journal. One last read through is required prior to final submission. Dr. Newman's assistant opens an old version of Microsoft Office Outlook, writes a brief e-mail message, and attaches a copy of the document (Note: Shared document workspaces are described in the Collaboration section of this white paper). Each of the authors, using Word 2000, reviews the manuscript, makes changes in the document, and adds comments in the comment section, which appears at the bottom of the screen.

Dr. Young notices that a citation is missing in the reference section. He minimizes the Word 2000 document, launches a browser, navigates to a library site, and opens the relevant article. He then reduces the screen for both the library site and the Microsoft Office Word document so that he can toggle between them to complete the citation. Dr. Young closes the browser and expands the Microsoft Office Word document back to full view. After completing his changes, he saves the document and sends it back to Dr. Newman. Dr. Newman receives all of the changes from her co-authors, opens each document, and cuts and pastes each desired change into her master document.

After Microsoft Office Word 2003

Drs. Newman, Young, and Zimmerman are collaborating on a manuscript that has been accepted for publication in the next issue of a major scientific journal. One last read through is required prior to final submission. Dr. Newman's assistant opens the manuscript in Word 2003 and writes the e-mail message from within the document. Each of the authors, using Word 2003, reviews the manuscript, makes changes in the document, and adds comments that appear on the right margin of the document. Dr. Zimmerman has a Tablet PC, so he adds hand-written comments as well like the one shown in the example above.

Dr. Young notices that a citation is missing in the reference section. He opens the Research Task Pane from within Word 2003 and types in his key words. The search is launched and the results appear in the Task Pane. Dr. Young simply adds the information into the Word 2003 document. After completing his changes, he saves the document and sends it back to Dr. Newman. Dr. Newman receives all of the changes from her co-authors and merges the documents so that the changes appear in her master document. She then decides which changes to accept.

Microsoft Office InfoPath 2003

As healthcare and pharmaceutical professionals we are inundated with regulations set by FDA, JCAHO, HIPAA, NIH and other agencies that dictate how we conduct our business. Accordingly, completing standardized forms is an everyday occurrence, and most of us enter the information into Word documents and print them out or hand-write our information directly onto paper. A quote from JCAHO speaks to the need for electronic solutions, "The use of paper-based data collection is widely cited as one of the largest areas of potential business improvement for both pharmaceutical and physician organizations."

Microsoft Office InfoPath 2003 is a new application in the 2003 release of the Microsoft Office System that was designed with the needs of healthcare workers in mind. With Microsoft Office InfoPath 2003 healthcare and pharmaceutical professionals can create rich, dynamic forms without having to know how to write technical code. Rather than creating a form in Microsoft Office Word such as Patient Registration or a FDA Statement of Investigator (1572) form to print out and complete by hand, the form can be created in Microsoft Office InfoPath 2003 so that the information entered can be stored in a centralized database, sent to a colleague via e-mail, or saved locally. Depicted below is part of an InfoPath 1572 form and an Adverse Events Reporting Form.

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
FOOD AND DRUG ADMINISTRATION
STATEMENT OF INVESTIGATOR
(TITLE 21, CODE OF FEDERAL REGULATIONS (CFR) Part 312)
(See instructions on reverse side.)

Form Approved: OMB No 0910-0014
Expiration Date: September 30, 2002
See OMB Statement on Reverse.

NOTE: No investigator may participate in an investigation until he/she provides the sponsor with a completed, signed Statement of Investigator. Form FDA 1572 (21 CFR 312.53 (c))

1. NAME AND ADDRESS OF INVESTIGATOR:

Investigator First Name:	Investigator Last Name:		
Investigator Street Address:	Investigator City:	Inv State: Select...	Inv Zip Code:

2. EDUCATION, TRAINING, AND EXPERIENCE THAT QUALIFIES THE INVESTIGATOR AS AN EXPERT IN THE CLINICAL INVESTIGATION OF THE DRUG FOR THE USE UNDER INVESTIGATION. ONE OF THE FOLLOWING IS ATTACHED:

☐ CURRICULUM VITAE ☐ OTHER STATEMENT OF QUALIFICATIONS

3. NAME AND ADDRESS OF ANY MEDICAL SCHOOL, HOSPITAL, OR OTHER RESEARCH FACILITY WHERE THE CLINICAL INVESTIGATION(S) WILL BE CONDUCTED.

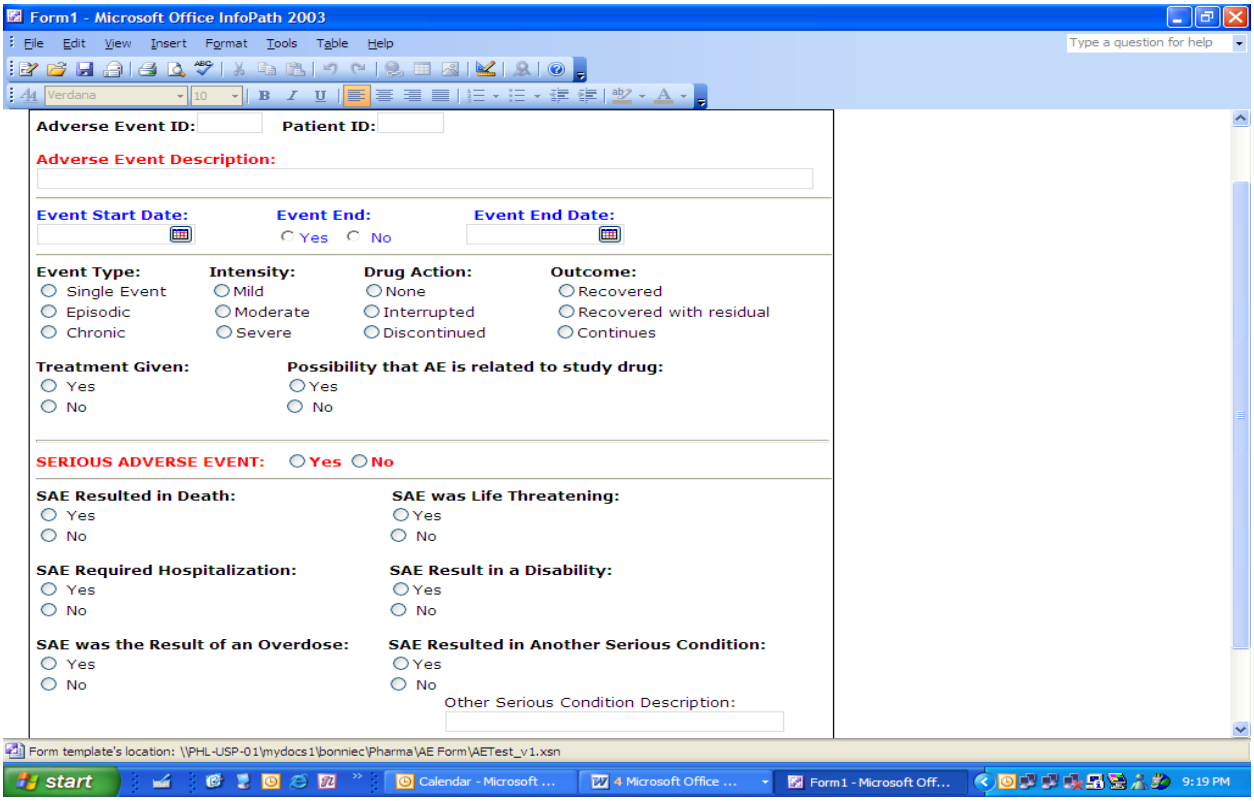
Facility Name:			
Facility Street Address:	Facility City:	Facility State: Select...	Facility Zip Code:

4. NAME AND ADDRESS OF ANY CLINICAL LABORATORY FACILITIES TO BE USED IN THE STUDY.

Clinical Lab Name:			
Clinical Lab Street Address:	Clinical Lab City:	Lab State: Select...	Lab Zip Code:

5. NAME AND ADDRESS OF THE INSTITUTIONAL REVIEW BOARD (IRB) THAT IS RESPONSIBLE FOR REVIEW AND APPROVAL OF THE STUDY(IES).

IRB Name:			
IRB Street Address:	IRB City:	IRB State: Select...	IRB Zip Code:



The richness of InfoPath 2003 is attributable to the "native XML," which means that the data entered in the form can be accessed and used in a wide variety of ways. However, the XML format is transparent to the user, who saves the form in the usual way without having to transform data or export it.

Data can be validated as it is being entered into an InfoPath 2003 form to increase the accuracy of information entered. When a form is being created the designer can choose to set acceptable ranges so that a temperature of 999 (rather than 99.9) would be flagged as an error. Accuracy also is improved with the use of spell check, which can potentially prevent a significant proportion of queries related to misspellings.

Before and After Microsoft Office InfoPath 2003

Before InfoPath 2003

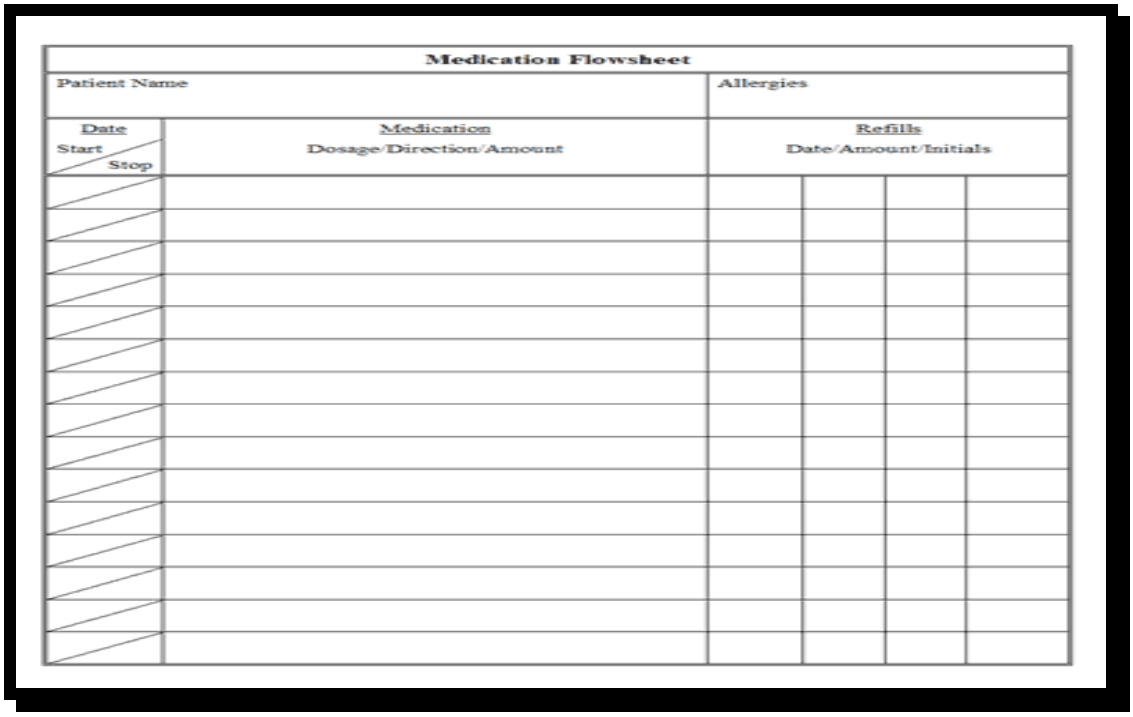
Here is a scenario for a patient seeking treatment at an outpatient psychiatric clinic: Mr. Dan Wilson walks into the clinic and tells the receptionist that he is there to see Dr. Miller. Mr. Wilson is given a clipboard with a registration form, a medical history form, and several assessment scales such as a Beck Depression Inventory to evaluate psychiatric symptoms. Mr. Wilson spends the next 15 minutes completing his forms, and then he hands them to the receptionist, who spends five minutes typing his registration information into the computer.

The receptionist then spends another 10 minutes calculating scores on the various assessment instruments. Dr. Miller spends five minutes glancing through the assessment instruments to see if Mr. Wilson endorsed any questions that indicate severe depression (e.g., suicidal thoughts). About 35 minutes after Mr. Wilson arrived for his appointment, Dr. Miller enters the waiting room to escort Mr. Wilson into his office. After the session is finished, Dr. Miller gives the medical registration form and assessment instruments to a charting clerk, who places the paper documents into the newly created patient chart. Dr. Miller spends five more minutes dictating his progress note into the hospital's telephone transcription system so that the progress note can be typed, printed, and sent via hospital mail to Dr. Miller's office to be included in Mr. Wilson's chart. Two days later, Dr. Miller receives a voicemail message reminding him to sign the progress note.

After InfoPath 2003

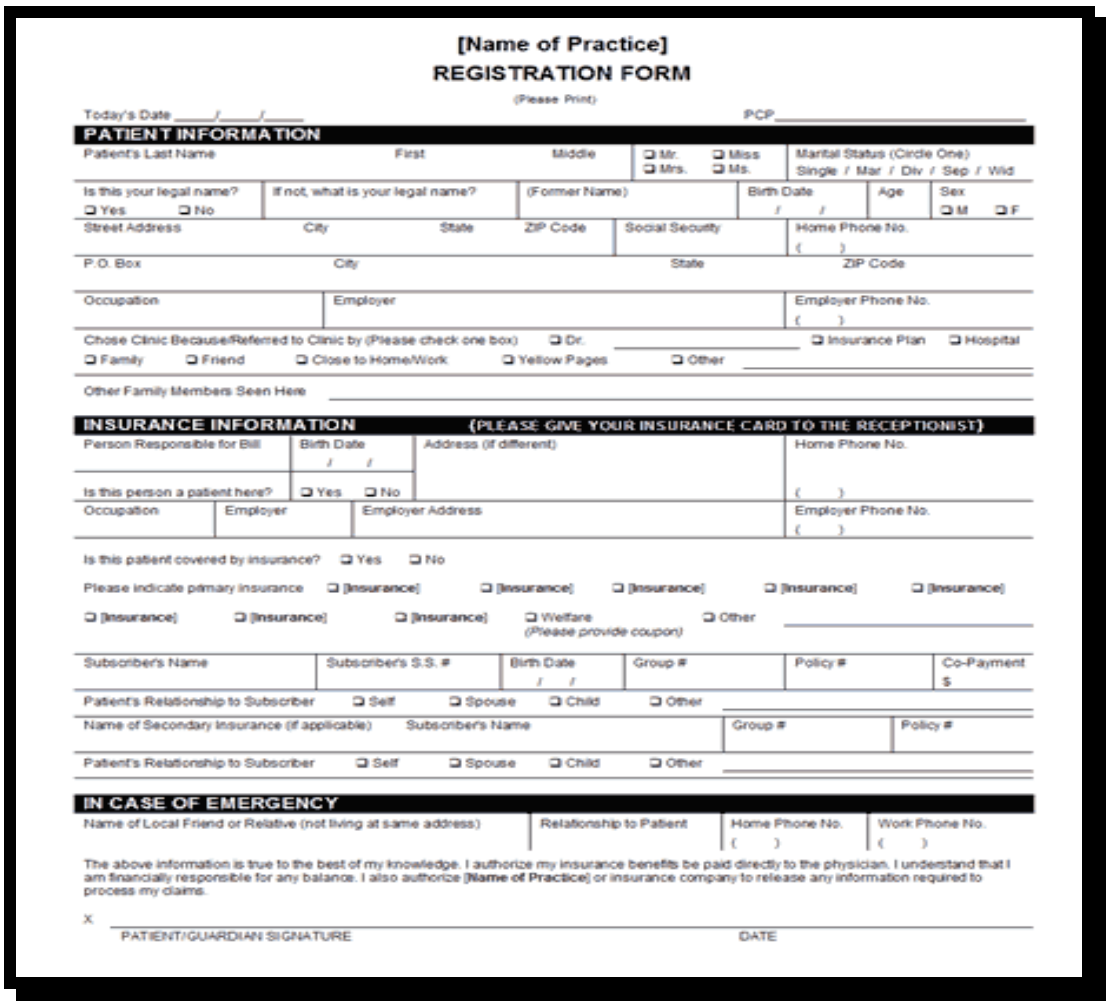
Here is what happens when the outpatient psychiatric clinic uses InfoPath: Mr. Dan Wilson walks into the clinic and tells the receptionist that he is there to see Dr. Miller. After providing a form of identification he is given a Tablet PC displaying the necessary forms. Since Mr. Wilson previously sought medical care in the hospital, when he enters his patient identification number into the InfoPath Patient Registration form his background information pre-populates the form. Mr. Wilson simply has to check the information for accuracy and enter his presenting problem. Mr. Wilson clicks through the medical history form and answers the questions on the assessment instruments. It takes Mr. Wilson 10 minutes to complete his registration and assessment forms using InfoPath.

Here are a couple of healthcare forms that are available with Microsoft Office. These forms are currently available in Word 2003, but they can easily be created in InfoPath as well.



Medication Flowsheet

Patient Name		Allergies			
Date Start / Stop	Medication Dosage/Direction/Amount	Refills Date/Amount/Initials			



[Name of Practice]

REGISTRATION FORM

(Please Print)

Today's Date ____/____/____ PCP _____

PATIENT INFORMATION

Patient's Last Name | First | Middle | ❑ Mr. ❑ Mrs. ❑ Miss ❑ Ms. | Marital Status (Circle One) Single / Mar / Div / Sep / Wid

Is this your legal name? ❑ Yes ❑ No | If not, what is your legal name? | (Former Name) | Birth Date / / | Age | Sex ❑ M ❑ F

Street Address | City | State | ZIP Code | Social Security | Home Phone No. ( )

P.O. Box | City | State | ZIP Code

Occupation | Employer | Employer Phone No. ( )

Chose Clinic Because/Referred to Clinic by (Please check one box) ❑ Dr. _____ ❑ Insurance Plan ❑ Hospital ❑ Family ❑ Friend ❑ Close to Home/Work ❑ Yellow Pages ❑ Other _____

Other Family Members Seen Here _____

INSURANCE INFORMATION (PLEASE GIVE YOUR INSURANCE CARD TO THE RECEPTIONIST)

Person Responsible for Bill | Birth Date / / | Address (if different) | Home Phone No. ( )

Is this person a patient here? ❑ Yes ❑ No

Occupation | Employer | Employer Address | Employer Phone No. ( )

Is this patient covered by insurance? ❑ Yes ❑ No

Please indicate primary insurance ❑ [Insurance] ❑ [Insurance] ❑ [Insurance] ❑ [Insurance] ❑ [Insurance]

❑ [Insurance] ❑ [Insurance] ❑ [Insurance] ❑ Welfare (Please provide coupon) ❑ Other _____

Subscriber's Name | Subscriber's S.S. # | Birth Date / / | Group # | Policy # | Co-Payment $

Patient's Relationship to Subscriber ❑ Self ❑ Spouse ❑ Child ❑ Other _____

Name of Secondary Insurance (if applicable) | Subscriber's Name | Group # | Policy #

Patient's Relationship to Subscriber ❑ Self ❑ Spouse ❑ Child ❑ Other _____

IN CASE OF EMERGENCY

Name of Local Friend or Relative (not living at same address) | Relationship to Patient | Home Phone No. ( ) | Work Phone No. ( )

The above information is true to the best of my knowledge. I authorize my insurance benefits be paid directly to the physician. I understand that I am financially responsible for any balance. I also authorize **[Name of Practice]** or insurance company to release any information required to process my claims.

X _____

PATIENT/GUARDIAN SIGNATURE DATE

Once the InfoPath forms are submitted, the scores on the assessment instruments are immediately calculated and entered into a SharePoint™ Portal Document Library[1]. Dr. Miller accesses the SharePoint Document Library with his Tablet PC to view Mr. Wilson's scores and items that have been flagged as severe (e.g., suicidal thoughts). He brings his Tablet PC with him into his session with Mr. Wilson, which begins 15 minutes after he arrived for his appointment. In the meantime, the receptionist sets up restrictions to limit access to the SharePoint Portal so that only those practitioners involved in Mr. Wilson's care can access his information. During the session with Mr. Wilson, Dr. Miller completes his progress note in InfoPath using his Tablet PC, which has handwriting recognition. When the session is completed, Dr. Miller applies a digital signature[2] to the note, places restrictions on the document (to protect patient confidentiality; see the Security Section in this white paper), and submits it to the SharePoint Portal Document Library.

Not only does Mr. Wilson's appointment begin 20 minutes earlier when the clinic has InfoPath, there are fewer resources used to manage the documentation. The receptionist no longer has to key in data or calculate scores on assessment instruments. Dr. Miller no longer has to glance through all of the assessment instruments to see if Mr. Wilson endorsed any items indicating suicidality. Dr. Miller no longer has to take the time to dictate his progress note, since he was able to write it on his Tablet PC while he was interviewing Mr. Wilson. There is no longer a need for the medical transcriptionist to type the progress note and remind Dr. Miller to sign it. Moreover, patient confidentiality is protected in several ways, which will be discussed later in this white paper. All in all, InfoPath afforded the outpatient clinic much efficiency, which saves time and lower costs.

Smart Documents

The introduction of XML-defined content in the Microsoft Office System has led to the advent of Smart Documents. Smart documents are documents with an underlying XML structure that are programmed to know what you need to do with them and give you help along the way. As you move through a smart document, the location of your insertion point (Word) or active cell (Excel) determines what is displayed in the task pane. This empowers developers to provide everything from context-sensitive guidance text (e.g., detailed instructions) to external data or calculations that may help you work on whatever portion of the document that you are in. Depending on how a smart document solution is developed, the document may even "know" when you are finished with it and tell you what to do next.

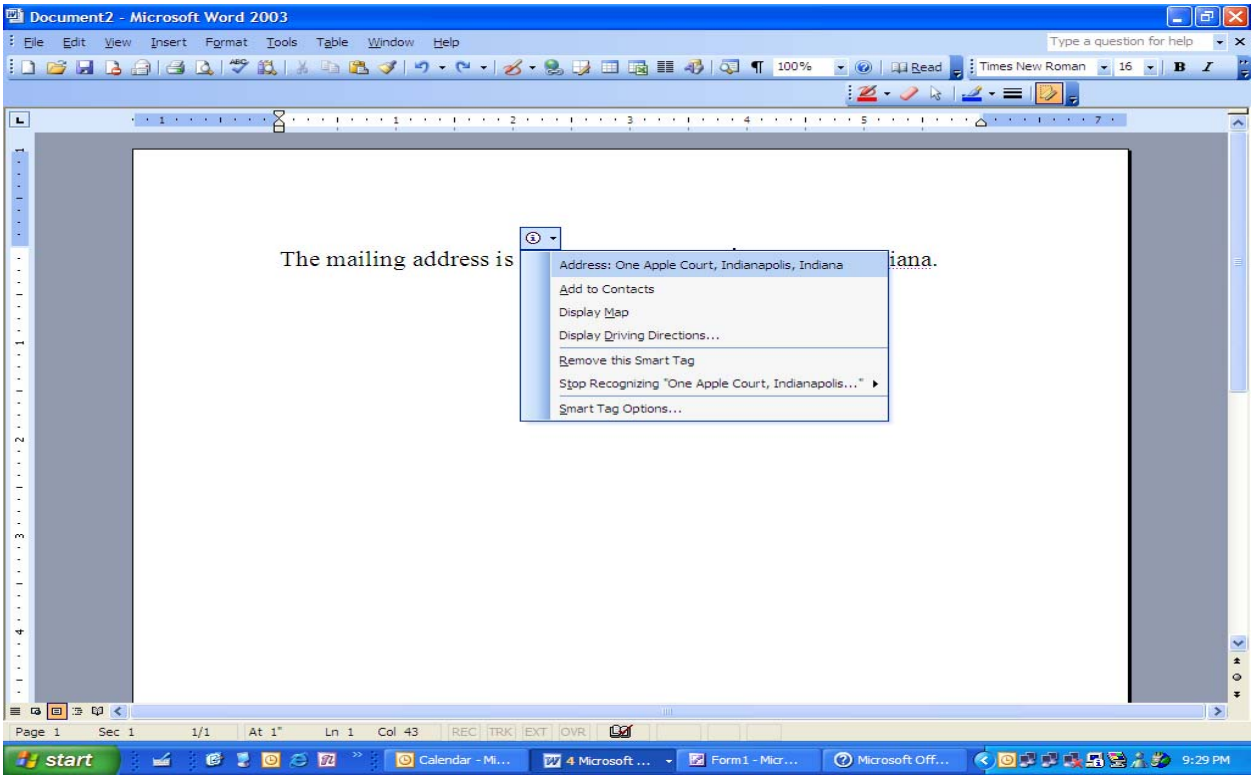
Developers identify data that can be made available to structured documents such as claims forms or patient consent forms by assigning actions to XML elements in a document. However, users of such structured documents can open, create, and modify Smart Documents without assistance from IT personnel. Additionally, Smart Documents created in Word or Excel 2003 can be viewed by professionals using older versions of Microsoft Office.

For example, imagine that you are a physical therapist who has been treating a patient for back pain with weekly therapy sessions. Now imagine after each session opening up a HCFA 1500 form in Word 2003, typing a few pieces of information, and having the rest of the form completed automatically. The form is then submitted with a click of a button to a claims warehouse. The entire process took two minutes and is possible with Smart Documents.

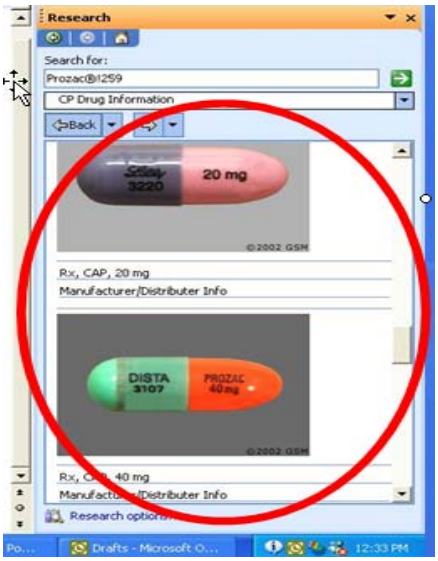
Smart Tags

Smart Tags were introduced in Microsoft Office XP and have been enhanced in the 2003 release of Microsoft Office so that they also are available in PowerPoint and Access. These tags are context-sensitive and provide additional functions and commands associated with particular enabled text. There are several Smart Tags already built in the Office applications to recognize specific text such as dates and contact names and addresses. For instance, when a patient referral letter is being written in Word 2003 a Smart Tag will appear when the patient name is entered, and if desired, the address can be pulled directly from Outlook Contacts.

Not only can information be inserted into a Microsoft Office document, it also can be taken from the current document and sent to another document or entered into a database. With Smart Tags a name and address typed into a Word 2003 document can be easily stored in Outlook 2003 as a new contact. The smart tag also provides options such as obtaining maps and driving directions.



A Smart Tag was created by Gold Standard Multimedia such that when a drug such as Prozac is keyed into the document, a healthcare professional can obtain a wide variety of additional information, including pictures and chemical composition.



Effective Teaming: Collaborate with Colleagues More Efficiently

All too often, healthcare and pharmaceutical professionals collaborate by sending documents back and forth via e-mail, and one person is made responsible for pulling all of the changes together. Numerous versions of a scientific manuscript or standard operating procedure are stored on various people's hard drives, and figuring out which version is the most current and who has it sometimes can be a daunting task. The process can be simplified with the introduction of Windows SharePoint Services (WSS) with the 2003 release of Microsoft Office and Windows Server.

WSS sites take file storage to a new level, from saving files to sharing information. These sites provide communities for team collaboration, empowering users to collaborate on documents, tasks, contacts, events, and other information. They enable team and site managers to easily manage site content and activity. The environment is designed for straightforward and flexible deployment, administration, application development.

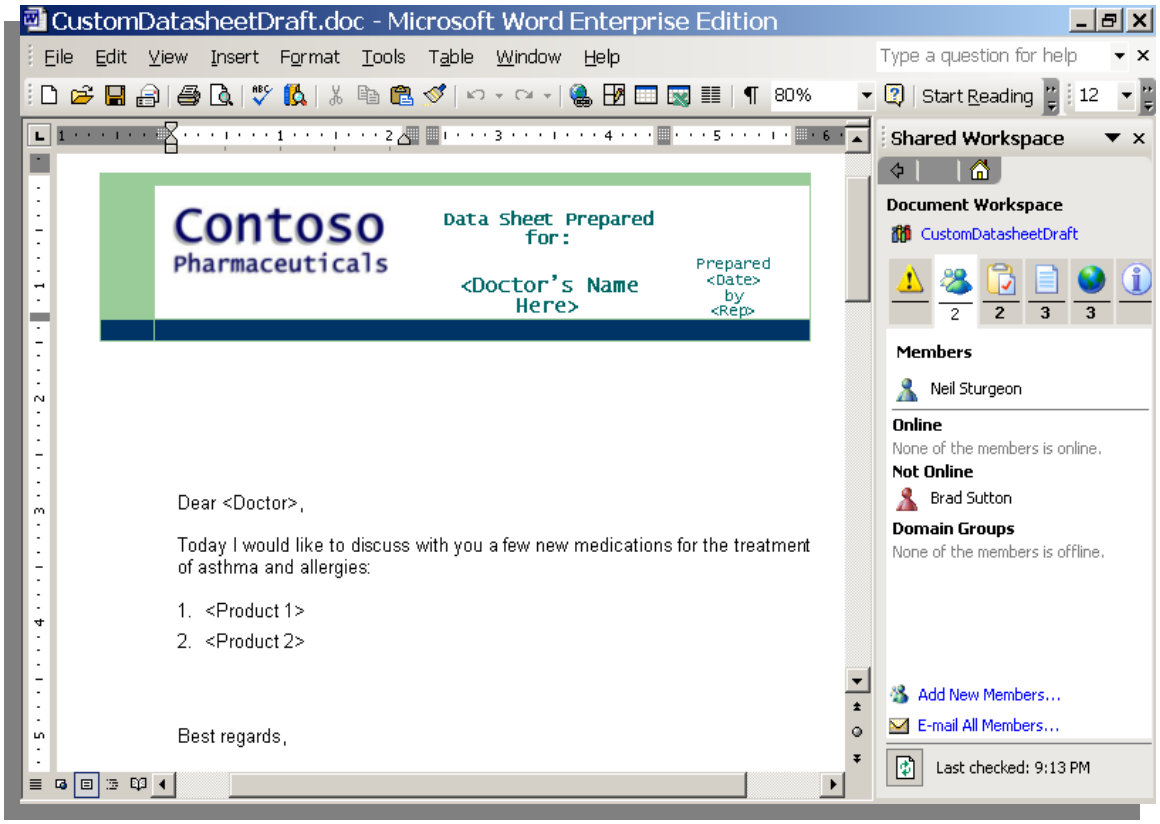
Document Workspaces

The new Microsoft Office System in combination with Microsoft Windows Server™ 2003 empowers healthcare and pharmaceutical professionals to create shared workspaces, which provide an integrated environment for extemporized collaboration. A shared workspace can be created from within any Microsoft Office application (i.e., Word, Excel, PowerPoint, Visio, Access, or) or from a web browser. In the 2003 release of the Microsoft Office System the document workspace task pane is available on the right side of the screen, called the task pane. The document that is created is stored in a library in the shared workspace.

From Microsoft Office Outlook 2003 a document workspace can be created when an attachment is placed on an e-mail message. A hyperlink entitled "Attachment Options" appears on the right side of the attachment line. A professional can choose to create a separate attachment, where each recipient of the document obtains a separate copy. Or

she can choose to create a shared attachment, where each recipient receives a copy of the document that can be automatically updated by changes made by the other recipients.

From the shared document workspace it is possible to see several pieces of information: the shared document, which members with access to the site are currently online, tasks assigned to members of the workspace, other related documents, links to relevant files or web sites, and information about the document such as who created it and who made the last modification. By viewing who else is online, instant collaboration is made possible through the use of Instant Messaging (IM). Rather than sending an e-mail that may not be read for hours or days, IM facilitates quick dialogues so that important questions can be answered immediately. So when a JCAHO site visit is one day away and revisions are still being made to a SOP, the task can be completed much more efficiently within a shared workspace.



Updates to documents located in shared workspaces occur every 10 minutes by default, but this timeframe can be modified to suit business needs. Professionals no longer risk spending time making alterations to a document that has already been updated by a colleague. A user can choose to update a document by clicking the "Get Updates" button or receive notifications when updates have been made. Notification can be made automatically, only upon consent of the user, or not at all. Additionally, if an attempt is made to update a document that has already been updated by someone else, then the professional receives a conflict message and is provided with options for resolving the conflict. Changes to a document can be easily merged with a shared workspace.

Healthcare and pharmaceutical professionals can make use of shared workspaces to publish forms created in 2003. A default template such as a Clinical Research Associate (CRA) Trip Report can be created in a Forms Library. Selected column headings from the Trip Report can be made available on the library page such that information can be sorted and tracked without necessarily opening individual CRA Trip Report forms.

Meeting Workspaces

Another aspect of Windows SharePoint Services (WSS) that can improve collaboration with colleagues is the ability to construct shared meeting workspaces. When a meeting is generated in Outlook 2003, there is a Meeting Workspace button that launches the Meeting Workspace task pane. From the task pane it is possible to create a web site wherein information pertinent to the meeting can be made available. Recipients of the meeting request can click on a hyperlink to view information such as an agenda and relevant documents. After the meeting has occurred the meeting minutes can be published in the meeting workspace and associated tasks can be assigned.

Meeting workspaces facilitate the sharing of information without clogging e-mail systems with large attachments and ensure that recipients are seeing the most up-to-date information. Changes made to documents prior to the meeting will be reflected in the shared workspace. It's no longer necessary to send out updated meeting requests with new versions of meeting materials.

Before and After Windows SharePoint Services with Microsoft Office

When we look at Windows SharePoint Services and how it is integrated with it becomes apparent how the new Microsoft Office System is a platform to enable higher rates of productivity and collaboration between teams.

Before Windows SharePoint Services with 2003

Let's take the example mentioned above about CRA Trip Reports. In many instances, a CRA completes a paper Trip Report after every visit to an Investigator site (a location where patients participate in clinical trials). The Trip Reports are reviewed by a Clinical Team Lead (CTL) or Project Manager one by one, and then the papers are filed away in a file cabinet in a single location. There is no way to merge information contained on different reports, other study personnel located in different offices cannot access the information, and each report must be created from scratch.

After Windows SharePoint Services with InfoPath 2003

The CRA Trip Report template is created in InfoPath 2003 and designed so that information from a database pre-populates sections of the form such as CRA name, study name, site number, investigator name, and investigator address. At the investigator site or in the hotel room (where the CRA can enter the information offline and have it synchronize once she

obtains an online connection) the CRA enters her trip information. Several reports are completed over the course of a three-day trip, and the CTL navigates to the SharePoint shared workspace to view the reports. Rather than opening each report, the CTL can merge the reports to see one document. Alternatively, the Trip Report document library was set up with the pertinent columns available on the library home page. From this view the CTL can read all of the necessary information without opening a single form.

SharePoint Portal Server V2

Windows SharePoint Services delivers sites for team collaboration and productivity, whereas SharePoint Portal Server (SPS) connects these places, people, knowledge, and business processes, facilitating smart organizations. SPS is an enterprise business solution that takes what is available in Windows SharePoint Services (WSS) one step higher. In addition to creating team sites, SPS provides tools that facilitate searching across team sites for people, teams, and information. For instance, each department in a hospital may create its own WSS team site, which is connected via the hospital's SharePoint Portal. Different forms of content – documents, services, news, and announcements – are made available in the SharePoint Portal via Web Parts. Many Web Parts are available "out of the box" with SharePoint Portal Server, whereas others can be obtained from Microsoft, our partners, or developed by IT staff. You can even use Microsoft Office to create your own web parts. Information can be made available to all users with access to the SharePoint Portal. Or, the information can be targeted to particular teams or individuals based on job role or security group membership. The IT Staff can control which Web Parts are added to ensure that adequate testing and validation has occurred prior to implementation.

From the hospital SharePoint Portal a cardiologist who has heard about the benefits of flaxseeds can search for relevant information on the Dietetics team site. At the same time, she can create her own personal site, where she organizes information to view only those pieces that are most relevant to her. She also sets up alerts so that she is notified when particular sources of information are updated. This enables her to easily remain current without having to constantly check various sites to see if new information has been posted.

A professional at a pharmaceutical company uses different features of the SharePoint Portal. He makes use of the versioning functionality, along with the ability to track a document through the approval process. He starts with placing an unfinished Standard Operating Procedure (SOP) in his personal "My Site" so that none of his colleagues will see it yet. Once the draft is ready for public consumption, he makes it available on his team site and his teammates are notified that the document is available for review. A discussion about the SOP takes place on the SharePoint Portal, where it is stored as a threaded conversation with comments and replies grouped together. After his team has completed their revisions of the SOP, the document is made available to the Quality Assurance (QA) director for approval. The QA director is given the power to approve or reject the SOP. Without approval the SOP cannot be published on the SharePoint Portal. The QA director has a question about the SOP and can see on the SharePoint Portal that the author is online. With the use of Instant Messaging the QA director has a quick conversation with the author, gets the answer he is looking for, and provides his final approval.

The SPS V2.0 is truly an enterprise portal solution with too many features to describe here. Suffice to say that it empowers healthcare and pharmaceutical professionals to communicate and collaborate more efficiently to increase productivity. The sentences "I can't remember where I put it" or "I don't know where to find it" will no longer be uttered by professionals in your organization. For additional information, go to http://www.microsoft.com/office/preview/sharepoint/default.asp on the Internet.

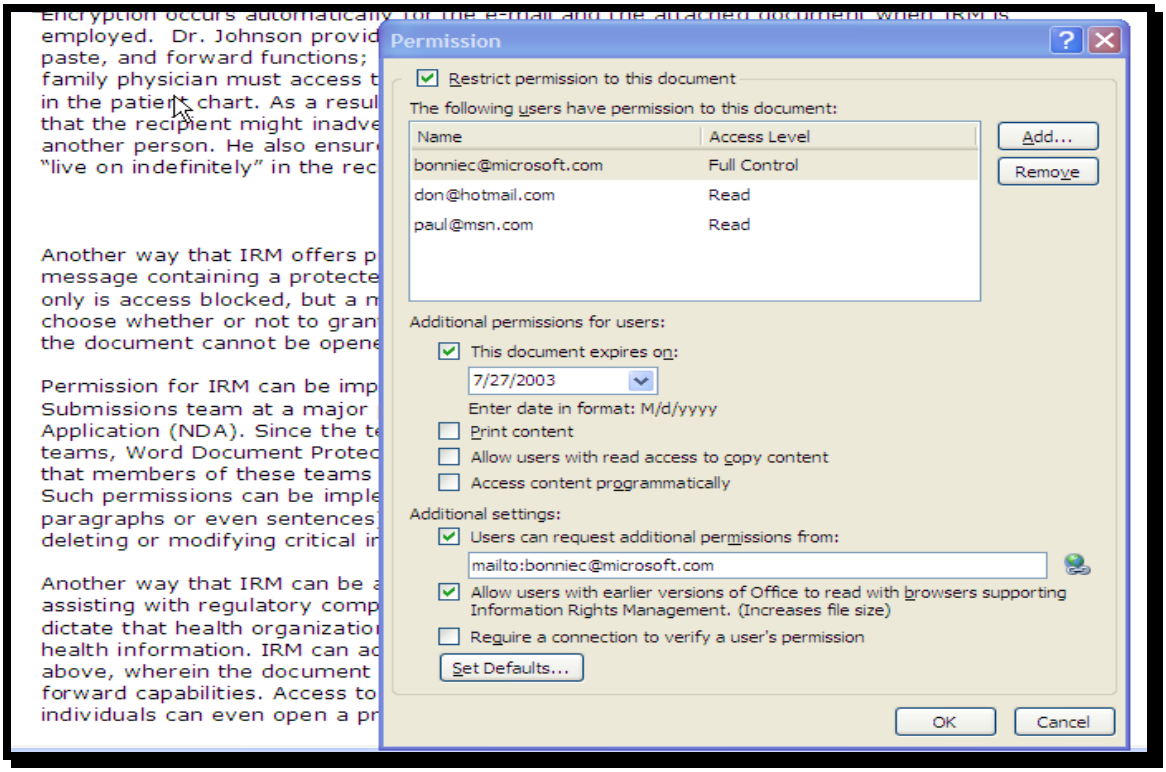
Process Management: Improving Security and Integrating Information

Information Rights Management

Over the past several years there have been several highly publicized cases of confidential patient information being inadvertently exposed to the public. One well-publicized example is when an employee distributed the names and e-mail addresses of more than 600 patients. Such mistakes can lead to personal hardship and high priced lawsuits. Protection of intellectual property also is an important concern within healthcare.

To address the growing need for safeguarding sensitive information the 2003 release of the Microsoft Office System includes powerful Information Rights Management capabilities (IRM) when paired with Microsoft Windows Server 2003. IRM enables information workers to reduce the risk of unauthorized access and use of information (such as "hackers") and inadvertent sharing of confidential information (such as when a person sends an e-mail to an entire distribution list).

Because IRM can limit a person's ability to copy, paste, forward, and print, the owner of a document can maintain a high level of control over whom has access to and what is done with sensitive information. For example, Dr. Johnson, an endocrinologist, completes an electronic progress note following a visit with patient who also is under the care of a family physician. Dr. Johnson sends the document to the family physician via an encrypted e-mail. Encryption occurs automatically for the e-mail and the attached document when IRM is employed. Dr. Johnson provides read-only access to the document; disables the copy, paste, and forward functions; and sets the document expiration date for two weeks. The family physician must access the document within two weeks and print it out to be included in the patient chart. As a result of these restrictions, Dr. Johnson has reduced the possibility that the recipient might inadvertently make changes to the document or forward it to another person. He also ensured that a copy of the confidential progress notes does not "live on indefinitely" in the recipient's e-mail Inbox.



Another way that IRM offers protection is by informing the document owner when an e-mail message containing a protected document is forwarded to an unauthorized recipient. Not only is access blocked, but a message is delivered to the document owner allowing her to choose whether or not to grant access to the specified user. Unless permission is provided, the document cannot be opened.

Permission for protecting documents can be implemented on an individual or group basis. For instance, the Submissions team at a major pharmaceutical company is working on a New Drug Application (NDA). Since the team needs to obtain feedback from the pre-clinical and clinical teams, Word Document Protection is used. With Word Document Protection permissions are set so that members of these teams can make changes to particular sections of the document. Such permissions can be implemented on a very granular level (such as individual paragraphs or even sentences). This way, there is very low risk of someone inadvertently deleting or modifying critical information. Additionally, IRM is used to prevent access to the document by anyone who is not involved in preparing the NDA.

Another way that IRM can be an invaluable part of an organization's security plan is by assisting with regulatory compliance. The administrative aspects of the HIPAA security rule dictate that health organizations must limit inadvertent loss or disclosure of confidential health information. IRM can address these requirements with the functionality described above, wherein the document owner has the power to disable copy, paste, print, and forward capabilities. Access to confidential information can be blocked so that only identified individuals can even open a protected document.

Custom templates can be created to assist employees in complying with organizational policies. For instance, a template can be created for electronic HCFA 1500 forms that automatically safeguards the information. Practitioners simply use the template and the security protection is automatically applied. In this way, practitioners do not have to take

the time to apply the security every time they complete a HCFA form – it happens behind the scenes and is transparent to the health care provider.

The protection that IRM affords is not limited to within an organization or to access when an individual is online. Rather, the restrictions follow the document or e-mail wherever it goes and are maintained during offline access. In addition, information protected with IRM can be accessed by individuals who do not have Microsoft Windows 2003 Server or the new release of Microsoft Office. A free add-on is available from Microsoft for Internet Explorer so that protected documents and e-mails can be accessed in a read-only mode.

Before and After IRM

Before IRM, Word 2003, InfoPath 2003 and Windows SharePoint Services

The Regulatory Affairs and Submissions team at Contoso Pharmaceuticals is putting together a New Drug Application (NDA) to submit to the FDA. Information from several different teams (e.g., pre-clinical, clinical, data management, biostatistics, and medical safety) needs to be compiled and integrated into the NDA. The project manager solicits the necessary documents from each team, and they are sent to him as attachments to e-mail. The project manager copies each of the documents onto his hard drive to review and, if necessary, modify. He sends copies of all modified documents back to the document originators to obtain comments and changes.

The teams review the changes and send back their revisions in documents attached to e-mail. Copies of the documents remain on their hard drives indefinitely. Furthermore, one disgruntled employee decides to forward several documents to a friend of his at another pharmaceutical company. The project manager opens the documents and must remember to save them to his hard drive with a different name so that they do not overwrite the versions he already has. He then reviews the changes and decides which ones to incorporate and which to reject.

After IRM, Word 2003, InfoPath 2003 and Windows SharePoint Services

The Regulatory Affairs and Submissions team at Contoso Pharmaceuticals is putting together a New Drug Application (NDA) to submit to the FDA. Information from several different teams (e.g., pre-clinical, clinical, data management, biostatistics, and medical safety) needs to be compiled and integrated into the NDA. The project manager sends shared documents and InfoPath forms to members of the other teams via e-mail.

With document protection in Word 2003 each team has been granted permission to read and modify only the pieces of the Word 2003 documents that are within their sphere of interest. The document owner used IRM to limit access to the documents so that none of the recipients can forward the documents to anyone else or save copies to their hard drives.

The modifications are made directly to the documents and relevant information is entered into the InfoPath forms. Modifications made to the Word documents are easily viewed on the right side of the documents, and the project manager can choose whether or not to accept them. The most important information entered in the InfoPath forms is viewable from SharePoint document library home pages in columns so that the project manager does not have to open each form submitted. However, he also has the option of merging all of the InfoPath forms with a single click. The project manager sets expiration dates on the

Word documents, which require team members who frequently work offline to obtain updated versions.

Since everyone is accessing the same documents via Sharepoint document libraries, there are no issues with version control, and the project manager can view who has made modifications to the documents and when. There is no longer a need to send e-mail messages back and forth with attachments, which can clog recipients' e-mail boxes. There also is no risk associated with having the project manager's hard drive fail and losing all of the work, since the documents are stored in a networked location that is frequently backed up.

This scenario demonstrates that by combining several Microsoft Office applications a "system" is created that facilitates a streamlined solution to a common process in the pharmaceutical industry.

XML to Integrate Information

Some of you may have heard about XML and how it enables the exchange of information between disparate systems. It is the XML behind the various Microsoft Office applications that will help you break down silos of information and create systems to connect different areas of your business. Many of us obtain information from e-mail, reports, spreadsheets, and legacy systems. Yet finding such information and integrating it is either impossible, requires cutting and pasting, or involves importing the data from one location to another. None of these methods is very efficient, and sharing text-based information has been particularly challenging.

For those of you who are unfamiliar with XML, here is a thumbnail description: XML stands for Extensible Markup Language and is used to represent individual data items with a very rich level of detail. The data are stored separately from the format, and XML describes a document's structure and meaning (in contrast, HTML describes format and layout). XML was created by the World Wide Web Consortium (W3C) and is not owned by any company (i.e., the XML standard is public). It is not only the accepted standard by Microsoft but also is endorsed by companies such as IBM and Oracle.

Now back to how XML can make a different for your business. There are a wide variety of systems used in the healthcare and pharmaceutical industries to support your business. There are electronic patient records, computerized physician order entry systems, enterprise resource management systems, electronic data capture systems, clinical data management systems, customer relationship management systems, and so on. As mentioned at the beginning of this paper, a common complaint is that data entered into one system cannot be accessed by others, because the systems are incompatible. XML breaks down this barrier by providing a standards-based data interchange format, wherein data can be converted to XML and easily read by other systems or applications.

Office 2003 offers groundbreaking capabilities for connecting the Office applications to your business processes via XML. Users can take advantage of built-in XML functionality that's totally transparent to them, power users can use XML functionality to bring data from outside sources into their favorite Office applications, and corporate developers and third-party software vendors can turn Office 2003 applications into data delivery mechanisms for their own add-ons and applications.

Before and After XML

Before XML

A patient, Mr. Beck, seeks treatment for a sinus infection with a primary care physician Dr. Ji, who is part of a medical university practice. After examining Mr. Beck and reviewing his lab results, Dr. Ji completes a multi-copy progress note form that contains CPT codes for the most frequently occurring problems. She writes a brief note and checks several boxes, including one to assign a code to the visit. The form is given to the office billing clerk, who in turn, files a copy in the patient chart and places another copy in a bin to be sent to a central billing office for processing. From the hospital's billing office a claim, based on the code that Dr. Ji assigned, will be sent to Mr. Beck's insurance company for reimbursement.

Mr. Beck's insurance company denies the claim, since the lab forms were not included in the supporting documents. A request for additional information form is sent to the medical university billing office. The billing clerk then sends a note to Dr. Ji via inter-office mail. Dr. Ji completes another form, makes a copy of Mr. Beck's lab results, and sends the information back to the medical university billing clerk, who in turn, submits another form to the Payer.

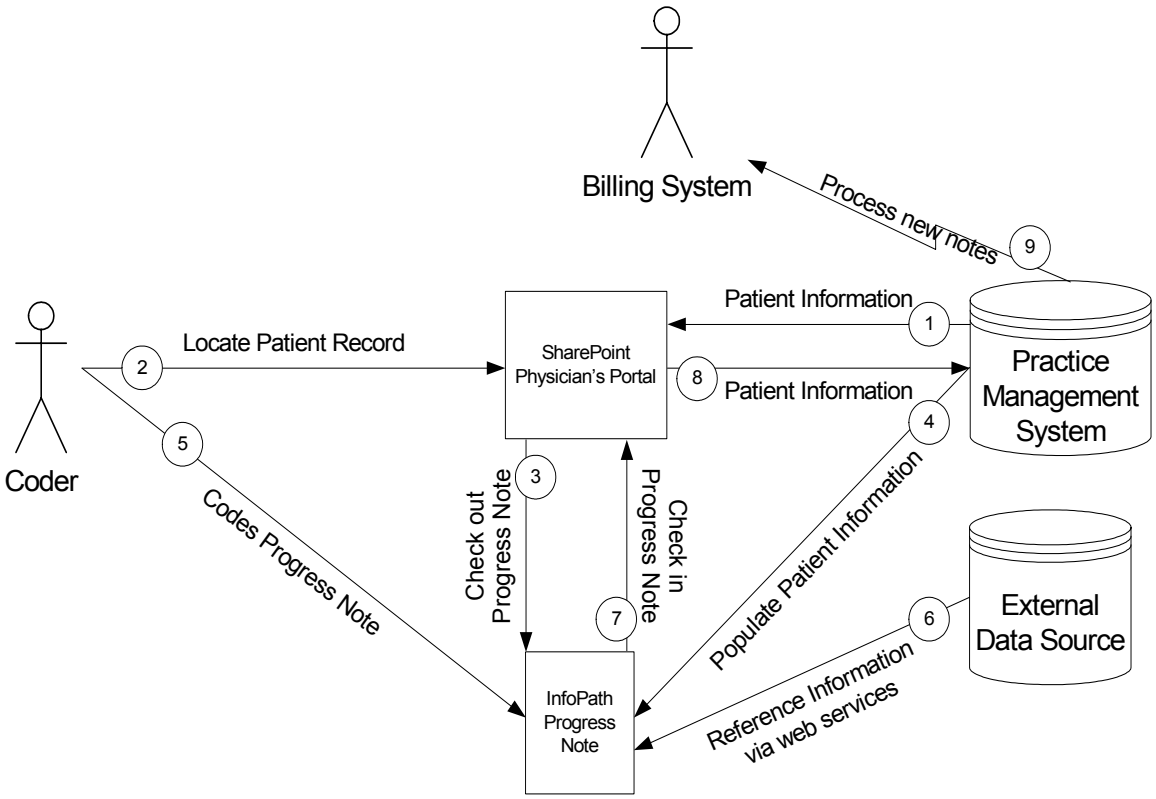
The clerk at the insurance company accepts the change and processes the remittance. This entire process involved seven different, hand-written paper forms and took twelve weeks.

After XML

With the use of XML, the claims processing and reconciliation process can be streamlined and paper forms can be eliminated. Since the applications included in the 2003 release of Microsoft Office make use of XML, interfaces with Practice Management Systems and Electronic Data Interchanges can be quickly and easily constructed. For example, several Microsoft products such as InfoPath (which is available in the new Microsoft Office System and as a stand-alone application), BizTalk, and SharePoint Portal can be integrated to create a complete solution to a common business process.

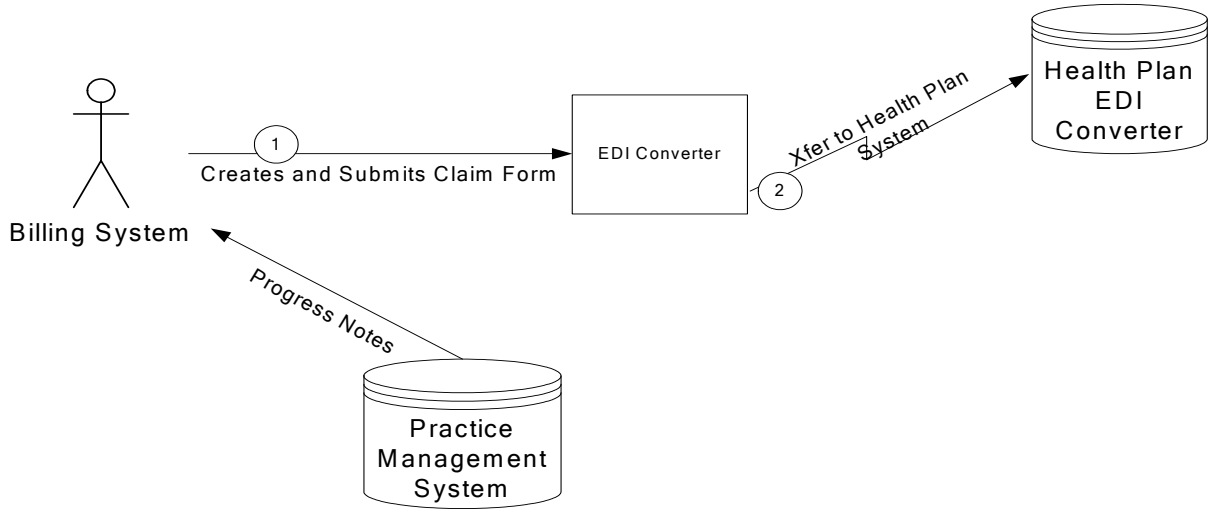
In this scenario Dr. Ji's progress note is written on an InfoPath form, accessible on a Microsoft SharePoint Portal, and stored in a Practice Management System. The medical university coder accesses this InfoPath progress note (by checking it out of the SharePoint Portal) and uses web services to obtain the appropriate, standardized code for the visit with Mr. Beck. The assigned code is entered into the InfoPath form, which is checked back into the SharePoint Portal. The updated information is then stored in the Practice Management System, which sends the information to the Billing System (see the process depicted below in Figure 1).

Figure 1



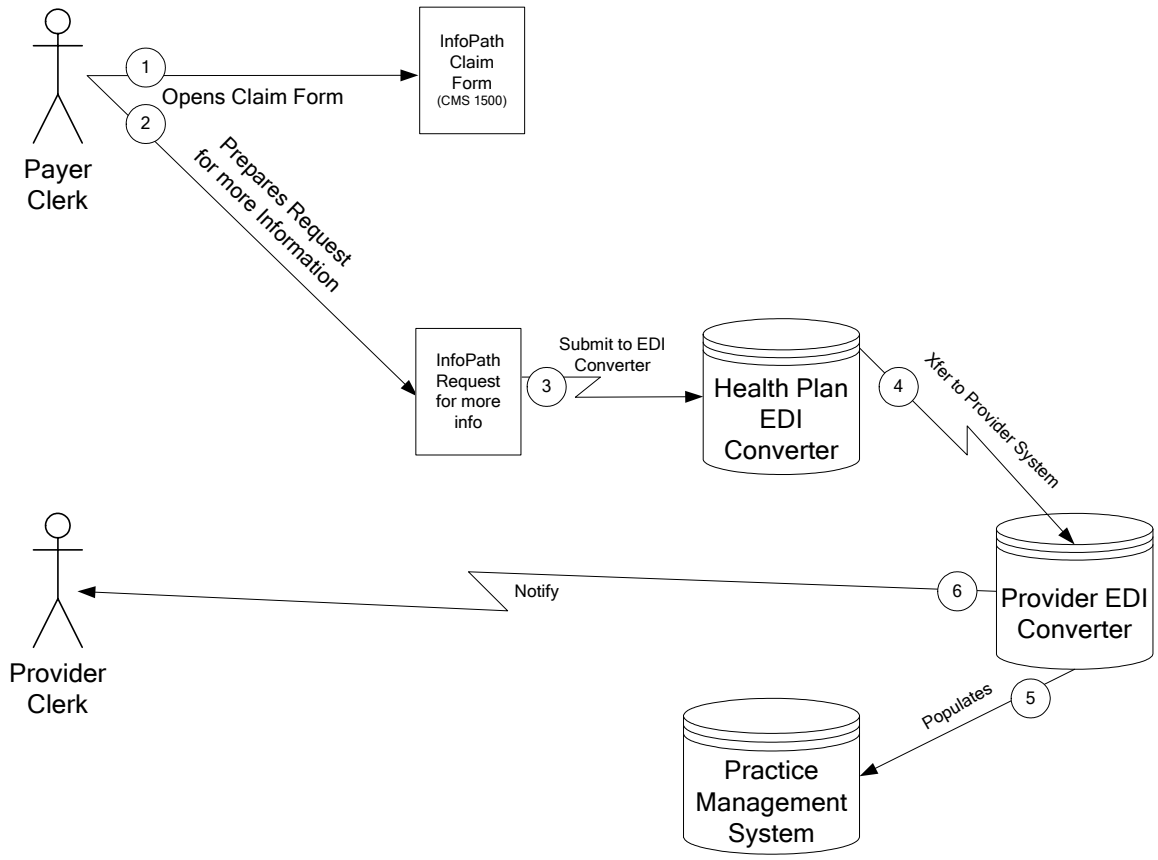
As you can see in Figure 2 below, the Billing System receives the information from the Practice Management System and a claims form is automatically generated. The Billing System's batch process sends all pending claims to the Electronic Data Interchange (EDI) converter (Microsoft BizTalk) to be transmitted to the Health Plan.

Figure 2



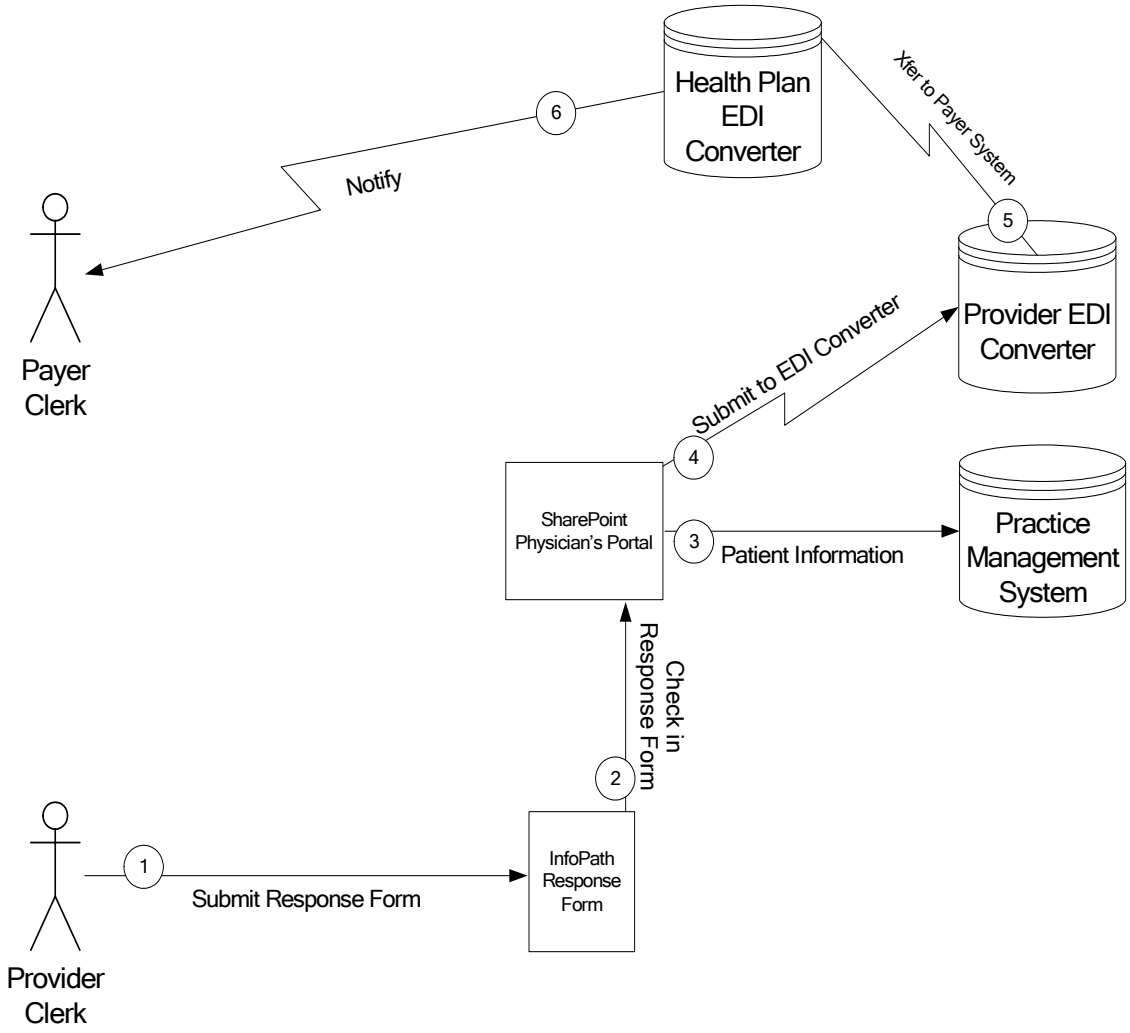
As can be seen in Figure 3, the claims are converted into EDI 837P messages, which are transferred to the Health Plan system. The clerk at the insurance company decides to reject the claim (because the lab results were not included) and submits the request for additional information to the Health Plan EDI Converter. The Health Plan EDI Converter converts the request for information into an EDI 277 message and transfers it to the medical university's EDI Converter (BizTalk). The clerk at the medical university is notified that a new request for additional information has arrived.

Figure 3



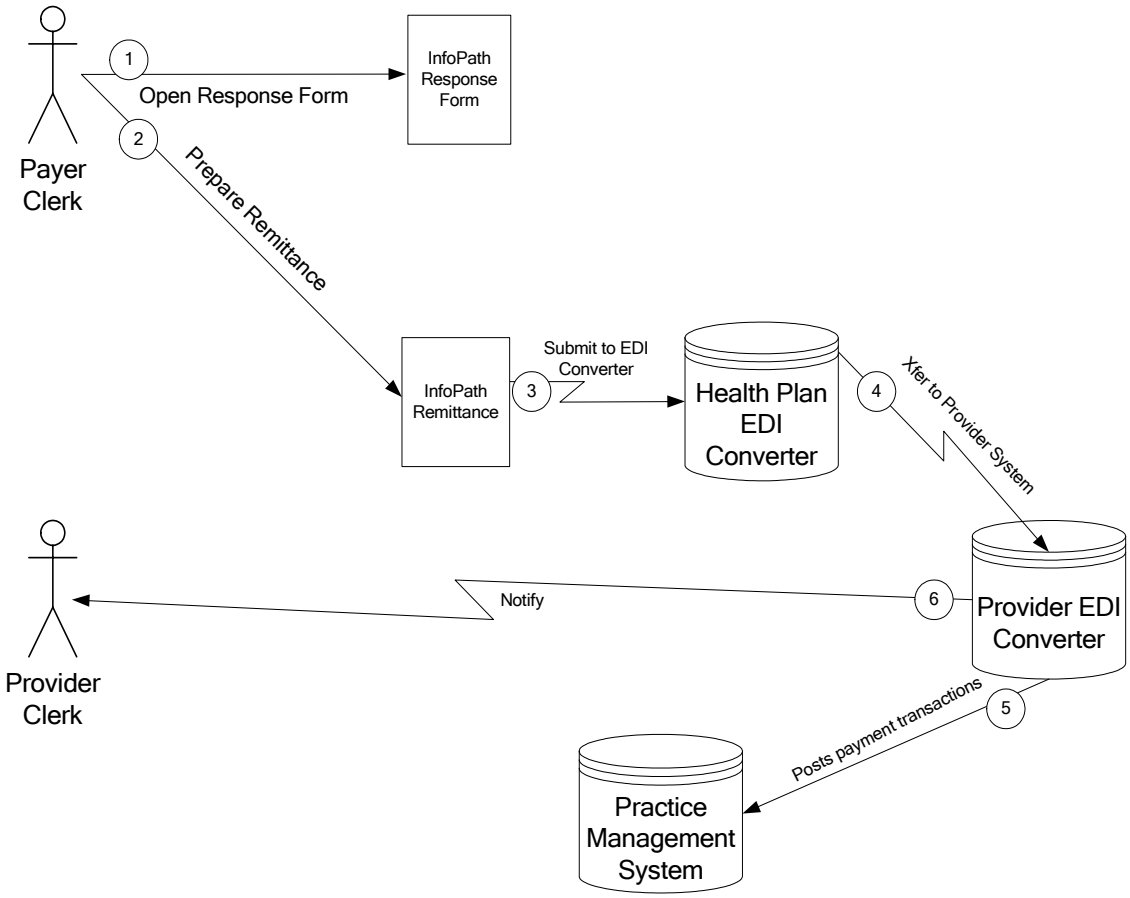
Information from the Practice Management System and the new request for additional information are sent to the SharePoint Portal, where the billing clerk at the medical university reviews the information (this process is depicted below in Figure 4). He sees that he simply has to provide information about Mr. Beck's lab results to the Health Plan. The system makes patient information (for example, therapy notes, lab results, progress notes) from external data sources available to the Provider Clerk via the InfoPath Task Pane. The lab information is entered into an InfoPath form, which is checked into the SharePoint Portal, stored in the Practice Management System, and sent to the Health Plan via the Microsoft BizTalk EDI converter and the Health Plan Converter.

Figure 4



The clerk at the insurance company completes the processing of the claim, pays the Provider and sends remittance advice to the Provider (see Figure 5 below). The remittance notice is submitted to the Health Plan EDI Converter, where it is converted into an EDI 835 message and is transferred it to the medical university's BizTalk EDI Converter. Then, the information is converted to XML, is posted in the Practice Management System, and a notification message is sent to the medical university billing clerk.

Figure 5



In this scenario the claim submitted for Mr. Beck's visit did not involve a single piece of paper and occurred over the course of three days. As mentioned above, XML provides a standards-based data interchange format, wherein data can be converted to XML and easily read by other systems or applications. Since InfoPath stores data as native XML, it fits easily into a larger, more comprehensive solution to a common business challenge. Information stored in silos now can be connected and integrated, and data from antiquated systems can be accessed and incorporated into current business practices. There is system-wide support for XML in the 2003 release of the Microsoft Office System.

Solutions Developed by Microsoft Partners

Many of the examples that I provided in this paper were hypothetical scenarios of how Microsoft Office can function as a platform, where you can build your own applications around it and use it to connect to back-end systems. However, there are numerous innovative solutions that already have been developed by our partners that can radically improve how you do business. A brief description of each partner and their solution is described below.

- **ScanSoft®** - The ScanSoft EMR Assistant provides small or mid-sized practices with the ability to implement paperless medical records with the new 2003 release of Microsoft Office. The solution includes ScanSoft PaperPort, Dragon NaturallySpeaking Medical and connectivity to Microsoft Office SharePoint 2003 to

add network scanning and speech recognition to the Microsoft Office System. The solution reduces costs through the elimination of manual paper processes and the costs associated with manual transcription services. Please visit www. ScanSoft.com

- **Ovid®** – With the 2003 release of Microsoft Office you will have the ability to link to important medical information resources from Ovid Technologies Inc.™ When you link from Microsoft Office to Ovid, you can access more than 900 leading medical and scientific journals to obtain fast, accurate answers to your medical questions to help improve patient care. Please visit http://www.ovid.com/microsoft/ For more information about Journals@Ovid, visit http://www.ovid.com/site/products/journals_landing.jsp
- **Gold Standard Multimedia/Clinical Pharmacology™ (CP)** - CP provides up-to-date, peer reviewed, clinically-relevant information on all US prescription drugs, as well as off-label uses and dosages, herbal supplements, nutritional and over-the-counter products, and new and investigational drugs. The CP Research Pane add-on integrates seamlessly within Microsoft Office to bring Clinical Pharmacology's drug information into Microsoft Office Word, Excel, PowerPoint, Outlook, Publisher, OneNote, Visio and IE. Please visit http://www.gsm.com/products_cpoffice.htm/
- **Allscripts Healthcare Solutions** - The Allscripts TouchWorks™ Solution is a comprehensive electronic medical records solution with integrated order entry and workflow management for large physician group practices and integrated healthcare delivery networks. Please visit http://www.allscripts.com
- **Standard Register®** - Standard Register is a leading developer of intelligent healthcare applications using Microsoft platforms, including Microsoft Office Word 2003 and Microsoft Office InfoPath 2003. These applications help clinicians streamline their day-to-day operations, making information available from disparate systems and allowing patient data to be shared securely. Please visit http://www.standardregister.com
- **Quilogy®** – Quilogy is a national professional services and systems integration firm with a vertical practice that focuses on the Health Care industry. Quilogy has delivered nearly 100 engagements through its Health Care practice focusing on hospitals, public sector health agencies, outpatient and rehabilitation care institutions and pharmaceutical companies. To learn more about our specific offerings and client success stories in Health Care, please visit www.quilogy.com/healthcare
- **Proscape –** Research shows that the number one way physicians receive information on prescription drugs is through the physician detail. The average physician detail meeting lasts 90 seconds and costs $175. Proscape allows pharmaceutical sales reps to differentiate themselves from the competition by delivering physician-specific sales presentations. Please visit http://www.proscape.com
- **DataLabs** – DataLabs is an innovative developer of Internet-based applications for clinical trial automation. DataLabs' flagship product suite, DataLabsXC, enables customers to quickly and easily design studies, capture clinical data, automate workflow and integrate legacy systems. DataLabsXC utilizes Microsoft Office Visio 2003 to help users build clinical studies in a matter of hours instead of weeks. An upcoming release of DataLabsXC will utilize Microsoft Office InfoPath 2003 to create intelligent forms that facilitate accurate data collection related to clinical studies. Microsoft Office InfoPath 2003 will give DataLabsXC users the ability to electronically collect data at clinical sites without an Internet connection, which will replace the current paper-based process that is used by many clinical sites. For more information, please visit www.datalabs.com
- **Motion Computing™** - Motion Computing is developing a Healthcare Tablet PC offering for busy healthcare professionals to give an out-of-the-box experience with access to the most commonly used features. Please visit

http://www.motioncomputing.com/solutions/healthcare.asp

Conclusion

At the end of the day, all of us in the healthcare and pharmaceutical industries share one over-arching goal: improve quality of life by delivering top-notch healthcare. This is accomplished in a multitude of ways from developing new therapies and devices to spending a few minutes speaking with the family of a terminally ill patient. Regardless of the form it takes, delivering quality healthcare requires time, and many of us never seem to have enough.

The 2003 release of the Microsoft Office System was designed to help the pharmaceutical or healthcare professional to have maximum personal impact, easily view business information for deeper insight and better decision making, communicate and collaborate more efficiently with teammates, and streamline business processes. These four objectives ultimately can result in saving time. And more time can mean better patient care.

With Outlook 2003 it is easier than ever to organize your e-mail and keep apprised of pending deliverables. It is easier than ever to conduct research and collaborate with colleagues while authoring documents in Word 2003. With InfoPath 2003 it is easier than ever to create forms that access data from other sources and store it is a format that can be used by other applications. Finally, the use of XML in Smart Documents and Smart Tags means that data from other sources can be incorporated into e-mail, documents, spreadsheets, and databases.

Shared document and meeting workspaces enable colleagues to collaborate with ease, and the 2003 release of Microsoft Office can facilitate compliance with FDA, HIPAA and JCAHO regulations. Controlling who has access to which data can be accomplished with Information Rights Management, and XML empowers organizations to develop solutions that join systems together so that information is accessible.

The changes in the new Microsoft Office System are far-reaching and forward-thinking. Yet, they are simple enough to use that many of us can experience the benefits without the help of an IT expert. At the same time, with a small investment from your development team it is possible to use the Microsoft Office System to create comprehensive solutions to your most challenging business problems.

For more information about solutions being developed by Microsoft partners, see the Microsoft Office Solutions Directory http://www.microsoft.com/office/techinfo/solutions/. Many of the offerings on this site do not require back-end customization and integration, and can be purchased or downloaded immediately. For information about becoming a Microsoft partner, see http://members.microsoft.com/partner/default.aspx or the Microsoft Office Marketplace http://office.microsoft.com/marketplace/.

You can find more information about the new release of the Microsoft Office System at http://www.microsoft.com/office/. To view a comparison between the 2003 version of Office and previous ones, see http://www.microsoft.com/office/preview/editions/compare.asp#section1.
For information about Microsoft Office for healthcare, see http://office.microsoft.com/assistance/2002/articles/healthcare.aspx.

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