

# Collaborative Acrobatics

## Using Adobe Acrobat to Share & Review Documents

By Robyn Berland

*robyn.berland@nyu.edu*

In both the commercial and educational domain, Adobe PDF (Portable Document Format) has become the de facto standard for viewing, printing, and sharing digital documents. This is due largely to the free distribution of Adobe Reader®, a multi-platform program available in over thirty languages, but also to the versatility of the program. Adobe Reader allows PDF documents to be easily viewed and printed on almost any personal computer in a predictable format, since PDF documents retain all of the visual characteristics of the original document, including layout, fonts, and graphics. This enables documents to be efficiently distributed via storage media, email, an internal network, or the Internet.

Further contributing to the widespread popularity of this format, Adobe PDF Maker (used to create PDF documents) is compatible with all standard platforms (e.g., Windows, Macintosh, UNIX/Linux) and integrated into many software applications (e.g., Microsoft Office, Photoshop). As a testament to the format's efficacy and popularity, there are currently more than 200 million PDF documents available on the Web.<sup>1</sup>

### Need Adobe Reader?

Adobe Reader is available on the following platforms: Windows (3.1 – XP), UNIX/Linux (Linux, Sun Solaris, SPARK, IBM, AIX, HP-UX), and Macintosh (7.5.3 – 10.4), and on mobile operating systems such as those running Symbian OS™ (i.e., Nokia SmartPhone), the Pocket PC and those running the Palm OS® on handheld devices.

You can download the software from the Adobe website ([www.adobe.com/support/downloads](http://www.adobe.com/support/downloads)), or get a copy for Windows and Macintosh from the Software channel within the NYUHome Files tab (<http://home.nyu.edu>).

Aside from preserving the aesthetic and organizational features of a document, PDFs can also improve workflow and reduce production and distribution costs. Adobe PDF content that is posted on the Web is fully searchable, and the software provides

editing and commenting tools, as well as a variety of security options. PDF documents can also be tagged<sup>2</sup> to enable well-formatted viewing on small mobile devices such as cell phones and PDAs, as well as making them accessible to screen readers.<sup>3</sup> Overall, it is an easier and more efficient distribution model than the days of print shops and heavy paper course packs for students.

Surprisingly, though, most of us are still living in a world of paper. Faculty, students, and almost everyone else are in the habit of converting digital documents back into stacks of paper for editing, reading, or annotating. The concept of the paperless office (or university) hasn't really taken off. Perhaps this is due in part to the fact that many people are not familiar with the versatile editing, commenting, and collaborating tools available in the latest version of Adobe Reader.

### ANNOTATE & COLLABORATE

A new set of tools in the Adobe Acrobat 7 suite of applications facilitates the sharing, reading, and review of information while enabling interaction with the content in much the same way we've historically done

1. [www.adobe.com/products/acrobat/adobe.pdf.html](http://www.adobe.com/products/acrobat/adobe.pdf.html)

2. Tagging is a step in the configuration of a PDF that allows the creator to embed information about the structure and content of the document, which then enables it to be viewed by various devices.

3. A screen reader is a software application for blind or vision-impaired people that attempts to identify and interpret what is being displayed on a computer screen. The results are then presented using text-to-speech software or by driving a Braille display. ([http://wikipedia.org/wiki/screen\\_readers](http://wikipedia.org/wiki/screen_readers))

with paper and slate (though with the added, priceless ability to undo!). The software allows you to mark-up and edit text, insert sticky notes, attach files (text and audio), apply stamps, and share comments and annotations with others through a paperless collaborative workflow.

In addition, a PDF can be designed with navigational bookmarks that focus attention on critical elements of the text while allowing readers the freedom to take their own path through the content based on their individual preference. Links can also be created within the document to jump to other sections, or to open external documents or websites—all of which can help the reader understand and absorb the document's content. The added ability to quickly locate information through a search tool can also help increase productivity and comprehension.

Examples of how these tools could be used include:

1. Students submit their papers for review to faculty, who use the commenting tools to markup the paper and send the comments back to the student. The student can then respond to these comments and send them back to the faculty until their paper is revised to its final form.
2. Faculty can assign content to students as a group review process, collecting and responding to commentary as it is received, producing a Summary report of comments that can be distributed to the class. Students can share their comments with others.
3. Teams can establish a review workflow in much the same way, sharing comments, adding information, and producing summaries that will be used to author their final report.
4. Individuals can interact with the content in much the same way they do with paper documents, using the page as a worksheet for notation and highlighting.

## **CREATE A PDF FROM A PAPER DOCUMENT**

Scanning paper documents and saving them as PDFs that are searchable and editable (a requisite for using Reader's markup tools) is usually a two-step process:

1. First, scan the paper document using a flatbed scanner or a scanner with a document feeder (all four ITS computer labs have scanners available for use). Since we are scanning these documents for use with digital tools, they should be scanned at 300 dpi (dots per inch). Documents containing line art should be scanned at 600 dpi. Color Mode settings should reflect the document's color properties (i.e., color or grayscale). Select grayscale if a small file size is more important to you than color. You can scan documents directly into Acrobat by opening the program then selecting File > Create PDF > From Scanner or by using an OCR (optical character reader) application such as ReadIris. If you use an OCR application to capture the document, you can skip step two below and just save the document as a PDF file. If you scanned the document to capture it, continue to step two to convert it from an image into an editable and searchable PDF.
2. Once scanned, open the document in Adobe Acrobat 7 (if not already open), select Document > Recognize Text Using OCR > Start, then save the results as a PDF. (When using OCR software such as ReadIris, the captured document can be saved in PDF, RTF, HTML, and Text formats. You can even select a target application that will open when the capture is complete.)

## **CREATE A PDF FROM A WEB PAGE OR FILE**

Acrobat provides the ability to create a PDF directly from most types of electronic files, or to capture a web page or an entire website, retaining

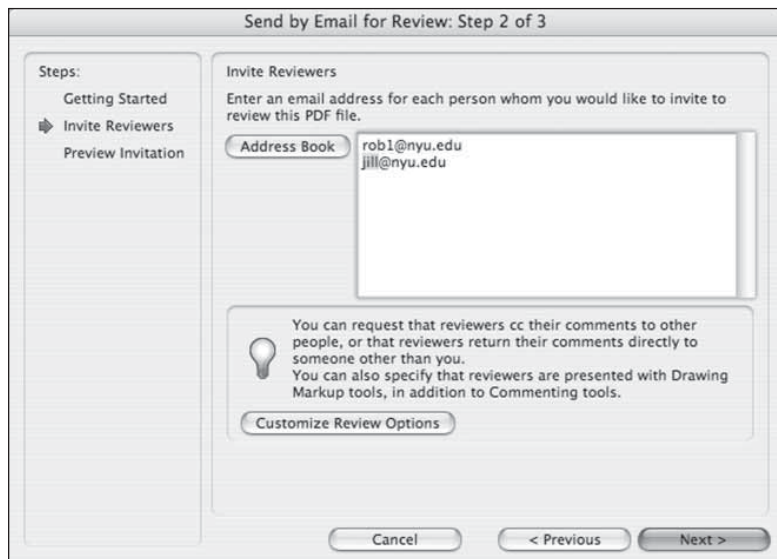
links and generating bookmarks in the PDF that is generated. Those options are also available in the File > Create PDF menu. As mentioned previously, you can create a PDF directly from many programs, usually by selecting the Print or Export option (see each application's help documentation for availability and instructions).

## **USE THE REVIEW TOOLS**

An Adobe PDF Review document can be distributed by a variety of electronic means, including email, an NYU Blackboard course shell, or a web page. Participants in the review can download the file to their computer's desktop and open it with Adobe Reader (or Acrobat Standard or Professional, if they have it). The Commenting and Drawing Markup toolbars travel with the document as it circulates, remaining consistent for each reviewer. Participants can then use these tools to add their own notations, reply to comments, and attach files. Comments can be exported and sent back to the originator of the review or shared with other participants, who can import the comments into their copy of the document (ensuring that everyone is reviewing the latest version of the document). An overview of the Review process is provided below.

## **INITIATE A REVIEW**

Although making a document available for review requires that you use the full version of Adobe Acrobat (Standard or Professional), the tools you use will limit the set of editing options to only those that are available in Adobe Reader. In Review documents, you will not be able to save form data, edit document content, insert or delete pages, or perform other options that are only available in the full version of Adobe Acrobat. This ensures that every reviewer can access all comments and changes that are made to the document, regardless of whether they use Acrobat or Reader. Because of this, you should be sure to wait



**Figure 1.** Enter the reviewer's email addresses (with the option to use your address book, if available).

until the document is finalized before you use the Send for Review tool. The tools will give you the opportunity to rename and save the original, unlimited version of the document for future edits; be sure to do this.

Once your document is ready for review, you should decide whether you'd like to distribute it by email, or by some other method (CD, Internet, Blackboard, etc.).

### Distribute by Email Using the "Send for Review" Collaboration Tool

In Acrobat, select Commenting > Send for Review > Send by Email for Review... The "Send for Review Wizard" walks you through the steps (see figures 1 and 2 for examples) and launches your email client, if available (Outlook, Eudora, Mail, etc.).<sup>4</sup> If you are working on a public computer, you should use the "Distribute by Another Method" instructions instead. The information in the automatically-generated email message is customizable and provides the opportunity to focus the participant's attention on those issues critical to understanding the material.

You can invite others to join the review at a later date by selecting

Commenting > Invite Additional Reviewers and following the Wizard's instructions. You can also use Acrobat to send reviewers a reminder; with the PDF in review open, select Comments > Send Review Reminder to launch your email application with a pre-set reminder message. Both the message and the recipient list can be modified.

### Distribute by Another Method

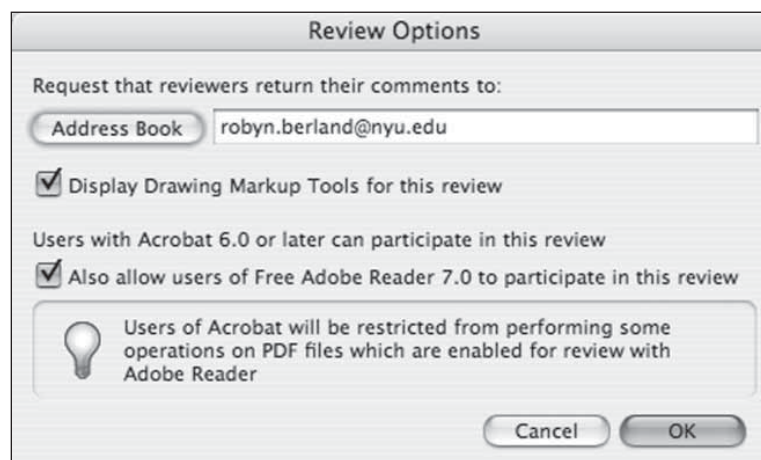
If you prefer to distribute your document by a method other than email, or prefer not to use the Send for Review Wizard, open the Acrobat

Comments menu, then select Enable for Commenting in Adobe Reader and save the file as a PDF. You can now copy it to a CD, upload it to a Blackboard course or web-based email client, or distribute it using any electronic means you prefer.

## PARTICIPATE IN A REVIEW

When you receive an invitation to participate in an Email Review, open the attached PDF in Acrobat Reader (or Adobe Acrobat Standard or Professional, if you have it). When Reader opens the document, it displays a "Documents Rights and Instructions" message that gives you the opportunity to practice your Review skills by adding comments and markups to the sample document. You might find it handy to keep the "Commenting" and "Drawing Markups" toolbars readily accessible in your workspace by activating them in View > Toolbars.

As you or other reviewers mark up the document with comments, they are added to the Comments pane (displayed when you select the Comments tab), and the author name is set to the computer's login account name. This is fine if you are working on your own personal computer, but if you are working in a public lab or you've chosen an account name that none of your colleagues will recognize, you should consider modi-



**Figure 2.** Indicate to whom the reviewers should return their comments.

4. Unfortunately, this tool does not communicate with web-based mail applications such as Hotmail or Gmail.

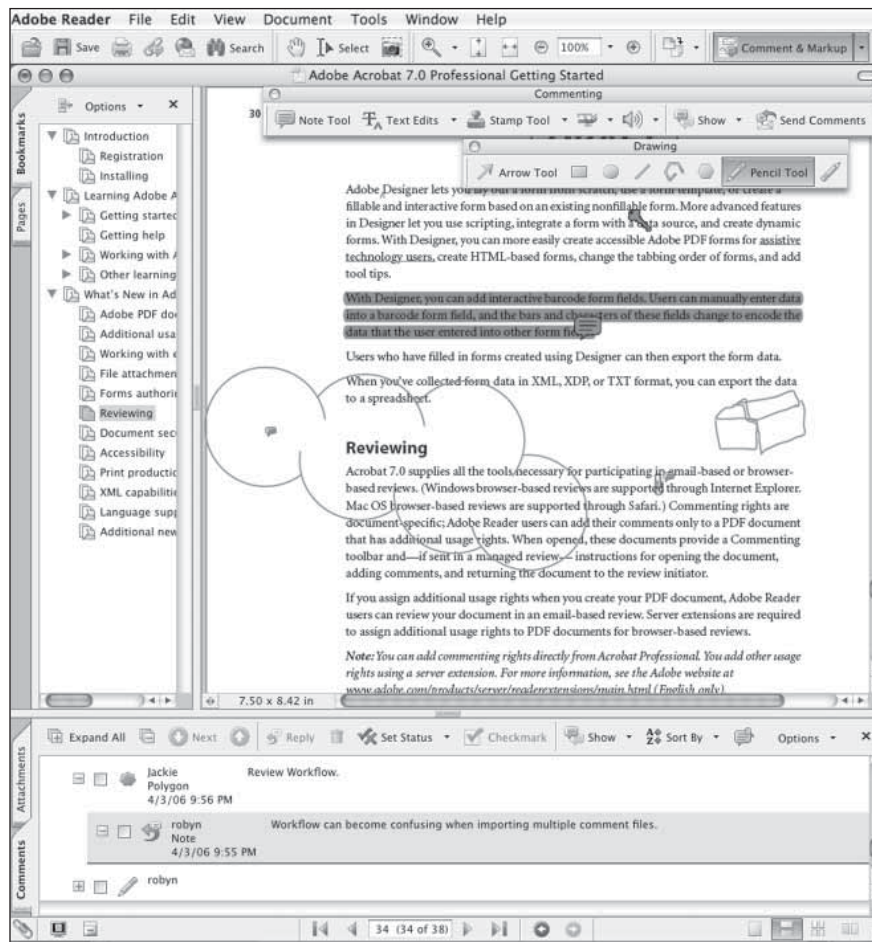


Figure 3. A sample review document including various types of comments.

fyng the Author field. To do so, right-click (in Windows) or control-click (in Macintosh) the comment to open a context menu, then select Properties. Click the General tab in the window that opens, then change the Author field to the name that you prefer to use. The appearance of your comments (color, shape, size, etc.) can also be modified in the Appearance tab, if you wish.

You can also right-click or control-click another reviewer's comment and select Reply. A new note box will open for you to enter your response to their comment. More than one Reply can be made to any comment and all of those can also be displayed, read, and commented upon.

There are six types of comments that can be inserted into a document: Notes, Drawing Markups, Text Editing Markups, Stamps, and Attach-

ments. You can select to view/hide any one of these category types or all of them. Comments can be viewed either in the Commenting pane or in the document workspace and can be sorted by Date, Page, Type, Author, Status (rejected, accepted, canceled, or completed), Color, or Checkmark Status. Comment/Reply threads

can be expanded and collapsed. Text Editing Markups tools allow you to indicate text you would like inserted, deleted or replaced, and text can be underlined and highlighted.

The sample PDF document in figure 3 shows a document that was Sent for Review and has been opened in Acrobat Reader. As you can see,

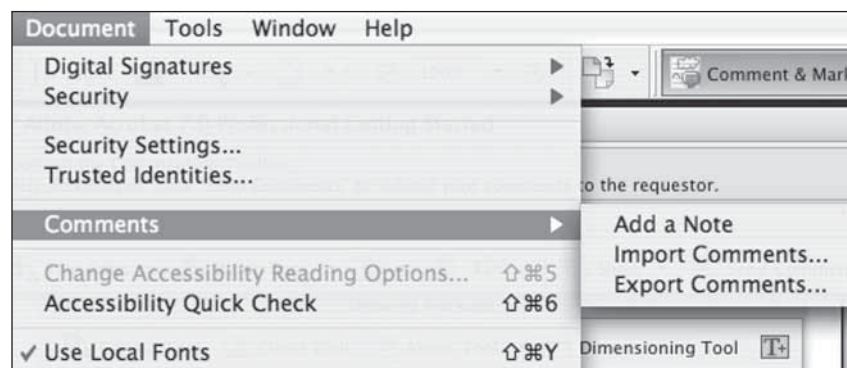


Figure 4. To export your comments to another reviewer, select Document > Comments > Export Comments.

the Commenting and Drawing Markup toolboxes are available to the reviewer. A Comment/Reply thread between reviewers appears, showing the comments from each reviewer that have been imported into the file.

Attached files, like the one indicated by the paperclip in the example, can contain text, images or audio, and are a good method of including revisions that do not easily fit into a text box or a source document. It is important to note, however, that network bandwidth and email capacity are always an issue, so file sizes should be kept small where possible (audio files, in particular, can enlarge a file size significantly). Attached files can be opened in their native applications when received (e.g., Microsoft Word, Adobe Illustrator, etc.).

## SHARE YOUR COMMENTS

When you are finished entering comments into the PDF you were sent to review, you can send the commented file back to the originator of the Review. In the Commenting toolbar, click Send Comments or select Comments > Send Comments. You can modify the email as you wish. Again, if you are using web-based email like Hotmail or YahooMail, you will need to save the file, then upload it as an attachment in a separate step. To save an untracked copy (see the next section for more information about the Tracker) of your annotated PDF before sending the comments back for review, select File > Save a Copy. To save a Tracked copy, select File > Save.

Rather than sending a copy of the entire file, you can choose to share just your comments with the other reviewers by using the export function. Other reviewers' comments can be imported into your version of the file using the import function. To export your comments, select Document > Comments > Export Comments (see figure 4). If desired, you can determine which of your com-

ments to export by selecting those comments in the Comments pane, then choosing Options > Export Selected Comments.

You can then email the .fdf file that is generated to the other reviewers. To import other reviewers' comments that have been sent to you, select Document > Import (then choose the appropriate .fdf file) or, in the Commenting pane, select Options > Import Comments.

## COLLATE REVIEWER FEEDBACK

After receiving comments from all participants, a summary report about the reviewed document can be generated by selecting Document > Summarize Comments. The summarization process generates a PDF that contains the submitted comments, as well as the original PDF document in a form that facilitates revision. The summary dialog box allows you to choose the layout of the report and what you would like to have included in the summary (see figure 5).

Tracking of PDF Review documents can be done with the Tracker (select Comments > Tracker). The Tracker also provides management tools that allow you to invite more reviewers, send email reminders,

email all reviewers, or remove reviewed files.

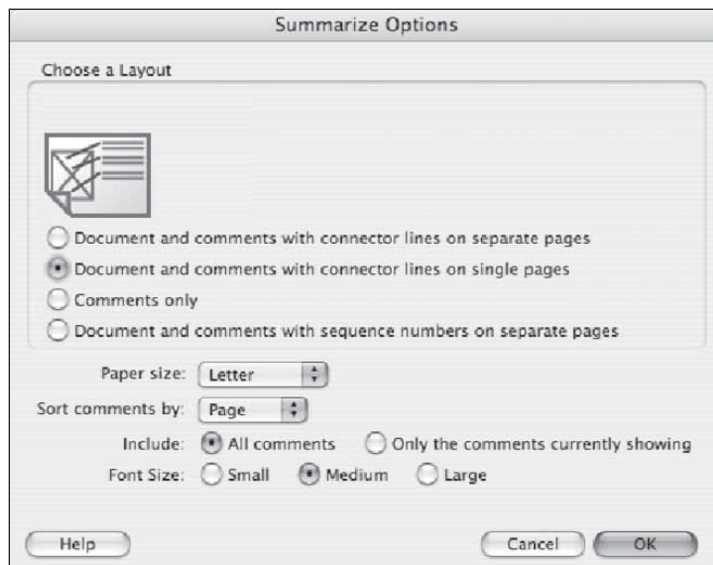
## WHERE TO GET STARTED

Adobe Reader is installed on all the ITS and ITS-affiliated computer lab workstations, on NYUHome stations ([www.nyu.edu/its/homestations.html](http://www.nyu.edu/its/homestations.html)), and on all the computers in the ITS hands-on classrooms ([www.nyu.edu/its/classrooms](http://www.nyu.edu/its/classrooms)). It is also available for download from the Software channel within the Files tab of NYUHome (<http://home.nyu.edu>), or from the Adobe website ([www.adobe.com/support/downloads](http://www.adobe.com/support/downloads)).

Adobe Acrobat, which allows you to create new PDF documents and initiate Reviews, is available for use in the four ITS computer labs and at the ITS Faculty Technology Services Drop-in Center (35 West 4th Street, 2nd floor; [www.nyu.edu/its/ftc](http://www.nyu.edu/its/ftc)). For more information on Acrobat and Acrobat Reader, visit the Adobe website, [www.adobe.com/products/acrobat/matrix.html](http://www.adobe.com/products/acrobat/matrix.html), and see the Help documentation available within each program.

---

*Robyn Berland is the Manager of the ITS Multimedia Lab at 35 West 4th Street.*



**Figure 5.** To generate a summary of all reviewers' feedback, select Document > Summarize and choose the layout and settings you prefer.