

Adobe® Acrobat® 6.0, Adobe Reader® 6.0, and Accessibility

Q. How do the Acrobat 6.0 software enhancements improve accessibility for people with disabilities?

A. Acrobat 6.0 addresses the needs of both users with disabilities and authors of accessible content. The new features and enhancements in Acrobat 6.0 and the free Adobe Reader enable users with disabilities to access, read, and use Adobe Portable Document Format (PDF) documents and forms—across multiple languages, including Japanese—more easily. And the improved tools for generating, reviewing, and enhancing Adobe PDF files found in the Acrobat 6.0 family make it easier for authors to create and distribute electronic content that is optimized for accessibility. Following is a summary of the key capabilities.

READING ADOBE PDF FILES					
FEATURE	ADOBE READER 6.0 (INCLUDED IN ADOBE ACROBAT 6.0 ELEMENTS)	ACROBAT 6.0 STANDARD	ACROBAT 6.0 PROFESSIONAL	WINDOWS	MAC OS X
New: Read PDF files aloud using standard operating system text-to-speech synthesis	X	X	X	X	X
Utilize advanced reading functions using Windows-based screen readers	X	X	X	X	
New: Quickly evaluate the accessibility of an Adobe PDF file	X	X	X	X	X
New: Customize the font size in the navigation panels	X	X	X	X	
New: Choose alternate reading orders	X	X	X	X	X
New: Take advantage of Japanese language support	X	X	X	X	X
Improved: Use keyboard navigation	X	X	X	X	
View documents in high-contrast mode	X	X	X	X	X

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- 9 I have Reader 6.0 on my desktop, but it doesn't seem to support the accessibility features mentioned in this FAQ. Am I missing something?

READING ADOBE PDF FILES (CONTINUED)					
FEATURE	ADOBE READER 6.0 (INCLUDED IN ADOBE ACROBAT 6.0 ELEMENTS)	ACROBAT 6.0 STANDARD	ACROBAT 6.0 PROFESSIONAL	WINDOWS	MAC OS X
Zoom in on text and reflow it to fit any size view	X	X	X	X	X
Save Adobe PDF content as text (TXT)	X	X	X	X	X
CREATING ACCESSIBLE ADOBE PDF FILES					
FEATURE	ADOBE READER 6.0 (INCLUDED IN ADOBE ACROBAT 6.0 ELEMENTS)	ACROBAT 6.0 STANDARD	ACROBAT 6.0 PROFESSIONAL	WINDOWS	MAC OS X
Create tagged Adobe PDF files within Microsoft Office 2000 and Office XP	X	X	X	X	
Add security while retaining accessibility	X	X	X	X	X
Improved: Convert existing Adobe PDF documents to tagged Adobe PDF files		X	X	X	X
New: Reduce the size of tagged Adobe PDF files for faster download times		X	X	X	X
Add text to scanned pages for improved accessibility		X	X	X	X
Export text from Adobe PDF files to text (TXT) format, rich text format (RTF), XML, HTML, and Word (DOC)		X	X	X	X
OPTIMIZING ADOBE PDF FILES FOR ACCESSIBILITY					
FEATURE	ADOBE READER 6.0 (INCLUDED IN ADOBE ACROBAT 6.0 ELEMENTS)	ACROBAT 6.0 STANDARD	ACROBAT 6.0 PROFESSIONAL	WINDOWS	MAC OS X
Improved: Check and touch up documents for accessibility			X	X	X
Improved: Create and optimize accessible Adobe PDF forms			X	X	X
New: Review and modify the reflow order of objects on a page			X	X	X

Q. What are some of the accessibility features available in Acrobat 6.0 and Reader 6.0?

Read PDF files aloud using standard Microsoft Windows and Mac OS X operating system text-to-speech synthesis

- A.** Acrobat 6.0 and Reader 6.0 synthesize the text in Adobe PDF files into speech using a regular Windows or Macintosh computer, so anyone can read basic Adobe PDF text files aloud even if they don't have a screen reader.

Utilize advanced reading functions using Windows-based screen readers

A screen reader with Acrobat 6.0 or Reader 6.0 provides the best reading experience for more complicated Adobe PDF files because products of this type typically offer easier navigation, allow users to toggle between table and text reading modes, and enable access to both Adobe PDF forms and documents. Acrobat 6.0 uses Microsoft Active Accessibility (MSAA), an application programming interface (API) that allows Windows-based programs to expose information about their content and user interface to assistive technologies utilizing speech and/or refreshable Braille output devices. Because MSAA is a widely supported accessibility standard, Acrobat 6.0 for Windows integrates with a broad range of assistive technologies, including screen readers from vendors such as Dolphin Computer Access (www.dolphinusa.com), Freedom Scientific (www.freedomscientific.com), and GW Micro (www.gwmicro.com).

Quickly evaluate the accessibility of an Adobe PDF file

When opening a PDF file, blind users have no way of knowing if the document is accessible or if it will read in the proper order. The Reader Quick Check feature in Acrobat 6.0 and Reader 6.0 automatically assesses a document's accessibility, indicating to the user if the document is a scanned image or if tags are present.

Customize the font size in the navigation panels

People with low vision can now also increase text size in the Acrobat 6.0 and Reader 6.0 navigation panels, making it easier for them to read bookmarks, comments, and signatures in an Adobe PDF file.

Choose alternate reading orders

Acrobat 6.0 and Reader 6.0 offer users three options for improving the reading order of text—and now also form fields—in Adobe PDF documents that aren't optimized for accessibility. The ability to select a reading order is especially important for users who require screen readers.

- *Let Acrobat Choose the Reading Order.* This is the default mode and attempts to determine the document's reading order by looking for columns, boundaries, form fields, and other layout information in the Adobe PDF file.
- *Standard Word Order.* Acrobat uses the word order within the Adobe PDF document's print instructions.
- *Left to Right, Top to Bottom.* Acrobat reads the page from left to right and top to bottom. Ideally, this is used for complex documents that are without columns.

Take advantage of Japanese language support

New with Acrobat 6.0 and Reader 6.0, both users with disabilities and document authors can utilize the full range of accessibility features when working with Japanese language files.

Use keyboard navigation

Operating a mouse can be difficult or even impossible for individuals with certain disabilities. Contiguous and noncontiguous selection of text, expanded keyboard shortcuts, arrow navigation, and other features enable users to easily navigate through menus, toolbars, navigation panels, dialog boxes, the document window, and other parts of the Acrobat 6.0 interface without using a mouse.

View documents in high-contrast mode

The contrast between text and page background can have a significant impact on legibility for individuals with low vision. Acrobat 6.0 allows users to increase the contrast by replacing a document's specified colors with either custom-color schemes created by the user or high-contrast color settings defined in the operating system.

Zoom in on text and reflow it to fit any size view

People with low vision often have difficulty reading small text. Magnifying the screen view is a cumbersome alternative because users then have to manually scroll from left to right to read a single line of text. When viewing a tagged Adobe PDF file using the Acrobat 6.0 reflow feature, users can take advantage of large type display, and the text will automatically reflow to fit the available screen space.

Save Adobe PDF content as text

Despite the high-contrast mode and text reflow capabilities listed above, users may want to save Adobe PDF files as text in certain situations:

- When using a screen reader that isn't MSAA-compliant
- When opening a file that contains tables or other content that's too complicated for the Read Aloud function
- When sending text to a Braille printer
- When testing a document for accessibility (exporting text and reviewing the reading order)
- When adding text from an Adobe PDF file to a document created in another application, such as Microsoft Word

Both Acrobat and Reader let a user save Adobe PDF content, including alternative text for graphics, as ASCII text files. Acrobat also offers the option to export text to RTF, XML, HTML, and Word (DOC).

- To export text in Acrobat Reader, choose File > Export Document to Text.
- To export text in Acrobat, choose File > Save As > Text (Accessible) or File > Save As > Rich Text Format or the file format of your choice (XML, HTML, DOC, etc.).

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- The ability to extract text may be disabled depending on the document's security settings. See "I've heard that adding security to PDF files makes them inaccessible. Is that true?" on page 8 to learn about options for reading such files.

Create tagged Adobe PDF files within Microsoft Office applications

Acrobat 6.0 allows an author to create tagged Adobe PDF files directly from Microsoft Office 2000 and Office XP for Windows applications. The tagged file incorporates logical structure and alternative text descriptions for graphics, making it easier for users to navigate a document in the proper reading order and understand the meaning of the graphics.

Add security while retaining accessibility

The 128-bit security options available in Acrobat 6.0 allow authors to prevent the repurposing of content and still make a file accessible to assistive technologies via MSAA.

Convert existing Adobe PDF documents to tagged Adobe PDF files

Now available for both Windows and Mac OS X, Acrobat 6.0 includes improved recognition of complex document components such as tables. Acrobat 6.0 automatically analyzes a document's logical structure and creates a new version that approximates the original structure and reading order. In most cases, this file will translate better with a screen reader than an untagged file will. You can also use this tool in conjunction with the Acrobat 6.0 batch processing function to convert volumes of documents efficiently.

Reduce the size of tagged Adobe PDF files

With the new Tagged PDF Compression feature in Acrobat 6.0, authors can improve access to Adobe PDF files by reducing download times.

Check and touch up documents for accessibility

With the enhanced Accessibility Checker in Acrobat Professional 6.0, authors can analyze documents and identify common accessibility problems faster—including tables and lists.

Create and optimize accessible Adobe PDF forms

Improvements to the Tags palette interface make it easier to add tags to fillable Adobe PDF forms. As authors create the forms, Acrobat 6.0 Professional can automatically insert each new form field into the Tags panel. Tagged Adobe PDF forms allow screen readers to recognize form fields, read any descriptive text associated with the fields, and identify the proper reading order.

Review and modify the reflow order of objects on a page

The new Content Panel in Acrobat 6.0 Professional simplifies the process of checking and modifying the reflow order of objects on a page, such as reviewing and changing a document's reading order and adding new interactive elements to the structure, including alternative text descriptions for graphics.

Q. Can I use any other Acrobat products to create accessible Adobe PDF files?

- A.** Yes, you can use Acrobat Capture 3.0 and the Acrobat Capture Agent Pack with Adobe PDF Forms Access. Following is a summary of the key accessibility capabilities of each product.

Acrobat Capture® 3.0—for converting large volumes of paper to accessible Adobe PDF files

- Retain the exact look and feel of the original document while embedding a layer of searchable, accessible text using optical character recognition (OCR) software.
- Review and fix suspect text quickly and easily with the QuickFix tool, ensuring 100% accuracy.
- Exclude page areas from the OCR process with the Zone tool, so graphics and random text won't confuse readers.
- Automatically generate hyperlinks and bookmarks based on tables of contents and indexes, so document navigation is easier.

For more information on Adobe PDF Forms Access, a component of the Acrobat Capture Agent, see pages 5–6 or go to www.adobe.com/products/acrcapture/agentpack/main.html. For more information on the Adobe Form Designer, go to <http://www.adobe.com/products/server/formdesigner/main.html>.

Acrobat Capture Agent Pack with Adobe PDF Forms Access—for creating accessible Adobe PDF forms and more

- Significantly reduce the time required to turn any fillable Adobe PDF form into an accessible form with Adobe PDF Forms Access.
- Automatically tag high volumes of simple Adobe PDF documents, such as memos and reports, with the Tag Adobe PDF Agent.

The Acrobat Agent Pack includes both an Acrobat Capture Agent that supports automated workflows and a standalone utility capable of running on any desktop—even those where Acrobat Capture isn't installed—thus enhancing the accessibility of Adobe PDF files viewed in Acrobat.

For more information on Acrobat Capture, go to www.adobe.com/products/acrcapture/main.html.

For more information on the Acrobat Capture Agent Pack, go to www.adobe.com/products/acrcapture/agentpack/main.html.

Q. Can I make fillable Adobe PDF forms accessible?

A. Yes. Adobe offers three options for creating accessible Adobe PDF forms:

- *Acrobat 6.0 Professional*. Turn any Adobe PDF document into an Adobe PDF form and add tags for accessibility.
- *Acrobat Capture Agent Pack with Adobe PDF Forms Access*. Quickly optimize existing fillable Adobe PDF forms for accessibility.
- *Adobe Form Designer 1.0*. Author new forms using XML templates; connect them to back-end systems; and automatically generate tagged Adobe PDF or accessible HTML.

Q. How do I make scanned pages accessible using Acrobat products?

A. Adobe offers paper capture solutions with Acrobat 6.0 and Acrobat Capture 3.0. Both software packages let you apply OCR to the scanned pages. The resulting Adobe PDF files contain computer-generated text, which is necessary for making the file's information accessible via screen readers and other assistive technologies.

For users who simply want to add a layer of text to their documents, the Paper Capture feature in Acrobat 6.0 provides this functionality. However, Acrobat Capture 3.0 and Acrobat Capture 3.0 Agent Pack offer a much more comprehensive set of tools for working with scanned documents. Acrobat Capture 3.0 makes it possible to ensure 100% accuracy in text output, add navigational

elements such as hyperlinks and bookmarks automatically, and process high volumes of scanned documents quickly and easily. In addition, the Acrobat Capture Agent Pack includes a specialized tool that reduces the amount of time it takes to turn a fillable Adobe PDF form into an accessible form. For more information on these products, read “Can I use any other Acrobat products to create accessible Adobe PDF files?” on page 5.

Q. Does Acrobat 6.0 adhere to the provisions in the U.S. government’s Section 508 guidelines?

A. The Acrobat 6.0 enhancements were created with Section 508 regulations in mind. To help government customers determine their own compliance, Adobe has prepared a document that details the accessibility features of Acrobat 6.0, including Reader 6.0, in the context of Section 508 guidelines. Look for this document at <http://access.adobe.com/section508.html>.

Q. Do the Acrobat 6.0 improvements mean that from now on all my Adobe PDF documents will be accessible automatically?

A. Creating an accessible electronic document requires both the right tools and proper authoring. Software applications geared toward accessible content retain and encode document content and structure and deliver that information effectively for use by assistive technologies. Some can also optimize documents—even older ones—for accessibility. Acrobat 6.0 provides all these capabilities through a wide variety of functions, including the Accessibility Checker, Tags palette, and Paper Capture feature. There are also several tools that can create tagged Adobe PDF files automatically, including:

- Microsoft Office 2000 and Office XP applications when Acrobat is installed
- The most recent versions of Adobe FrameMaker®, InDesign®, and PageMaker®
- The Web Capture feature in Acrobat

However, authors must also create documents with accessibility in mind, meaning they need to:

- Define structure such as headers and columns
- Add navigational features such as bookmarks and hyperlinks
- Include explanatory information such as alternative text descriptions for graphics, so a blind person using screen reader software can understand the purpose of the graphics
- Enhance scanned images of documents with a layer of text that can be read easily with screen reader software

Q. What makes tagged Adobe PDF files more accessible?

A. The ability to tag Adobe PDF documents is a part of the PDF specification that allows Adobe PDF files to contain logical document structure such as a title page, chapters, sections, and subsections. Tagged Adobe PDF files created in Acrobat 6.0:

- Include complete logical structure plus additional information about a document’s contents that substantially increase accessibility
- Allow precise control over document reading order, including table data and form fields

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- Understand paragraph attributes, which is necessary for accurate text reflow
 - Enable the export of document content and structure to other formats, such as RTF and TXT files
 - Support alternative text descriptions for graphics
 - Allow accessible interaction with documents, such as filling in form fields and following links
 - Represent all text as Unicode—a standard for describing text characters—so characters and words are presented to assistive technologies in a clear manner; for example, differentiating between soft and hard hyphens so a word broken across two lines reads as a single word.

Q. Are all accessibility features offered for both Macintosh and Windows operating systems?

A. There are three areas where Macintosh and Windows functionality differ. These differences are the result of the programming options available to Acrobat via the two operating systems or software applications from other vendors.

- *Screen reader support.* Acrobat 6.0 and Reader 6.0 for Windows support screen readers via the MSAA API. Vendors who utilize this accessibility standard include Dolphin Computer Access, Freedom Scientific, and GW Micro. Adobe also incorporated into Acrobat 6.0 the new set of accessibility APIs introduced with Mac OS 10.2, but there were no known developers of the Apple API during the development of Acrobat 6.0. Adobe looks forward to working with its assistive technology partners to develop an accessibility solution for the Mac platform.
- *Automatic creation of tagged Adobe PDF files.* Acrobat 6.0 for Windows enables authors to create tagged Adobe PDF files directly from Microsoft Office 2000 and Office XP applications.
- *Keyboard navigation.* Acrobat 6.0 and Reader 6.0 for Windows offer a wide variety of keyboard options, including noncontiguous text selection, shortcuts, and arrow navigation. Options are more limited with the Macintosh version of these products.

Q. I've heard that adding security to Adobe PDF files makes them inaccessible. Is that true?

A. Acrobat 6.0 offers 40-bit and 128-bit encryption for documents. The default settings for both these levels allow for accessibility. However, 128-bit encryption provides a specific option that allows authors to prevent users from copying and pasting text while also ensuring that the document is accessible to those who depend on assistive technology, such as MSAA-compliant screen readers. With 40-bit encryption, if the author doesn't allow content copying and extraction in Acrobat 5.0, the file is inaccessible. In Acrobat 6.0, Adobe worked with assistive technology partners to develop a solution that enables future releases of screen readers to read 40-bit encrypted files while preserving copy permissions.

Furthermore, many older documents can be easily modified, making them available to screen readers. To change the security settings in an existing document, simply follow these steps:

1. Open the document in Acrobat 6.0, entering the appropriate password if required.
2. Choose File > Document Security.

3. Choose Change Settings.
4. Choose 128-Bit RC4 (Acrobat 6.0) from the Encryption Level menu.
5. Select Enable Content Access for the Visually Impaired.
6. Select any other security options and click OK.

Q. How does Acrobat 6.0 treat ligatures?

A. Ligatures present multiple letters as a single character; an example is the “fi” in office. Ligatures typically make the letter combinations more graphically pleasing to the sighted user, but traditionally they have been difficult to render through a screen reader. Acrobat 6.0 separates ligatures into individual letters before the text passes on to a screen reader.

Q. Does Adobe offer training courses on creating accessible Adobe PDF files?

A. Training on Adobe software products is offered by a large number of Adobe Certified Training providers. To help both customers and trainers understand the subtleties of creating accessible Adobe PDF documents, Adobe offers free downloadable training courseware at www.adobe.com/products/acrobat/access_info.html#training.

Q. What resources are available to help me learn more about Acrobat, Reader, and accessibility?

A. Please visit www.adobe.com/products/acrobat/access_info.html, where you’ll find standalone training courses, including *Authoring for accessibility and reflow in Adobe FrameMaker and Acrobat*, *Authoring for accessibility and reflow in Adobe InDesign and Acrobat*, and *Authoring for accessibility and reflow in Microsoft Word and Acrobat*.

Q. I have Reader 6.0 on my desktop, but it doesn’t seem to support the accessibility features mentioned in this FAQ. Am I missing something?

A. Make sure you have the most recent and complete version of Reader 6.0. Two versions are available for download on the Adobe Web site. The smaller option minimizes download time and is for users requiring only the most commonly used features. The larger option comes with additional functionality, including accessibility support. A text-only version of the download page is available at www.adobe.com/products/acrobat/alternate.html.

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