



Electronic Filing System

Authoring Manual PASAT

Version 4.0

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TECHNICAL REQUIREMENTS

Make sure you meet all system requirements before proceeding with EFS PASAT.

	Minimum	Recommended for best results
Processor	Pentium II 266 MHz	Pentium III 500 MHz or higher
Memory	64 MB RAM	128 MB RAM
Screen Display	800 x 600	1024 x 768 or higher
Free Hard Disk Space	70 Megabytes	100 Megabytes
Plug-in	AlternaTIFF v1.3.5 TIFF Viewer Plug In.	
Browser	Internet Explorer 5.5 or greater	
Internet Connection	56Kbps or faster modem	
Operating System	Windows 95 (with Service Pack 1 or greater)/ 98 (with Customer Service Pack or Second Edition)/ NT (4.0 with Service Pack 3 or greater)/ 2000	
Scanner	Capable of producing black and white TIFF images at 300 dpi; CCITT Group 4 compression	
Applications	Microsoft Word 97 (with Service Release 2 or higher), or Microsoft Word 2000 including Office Assistant	
	Windows Imaging	
	Up-to-date Printer Driver (s)	



INTRODUCTION

Patent Application Specification Authoring Tool (PASAT) is used to author electronic (XML) versions of patent application specifications.

The PASAT Process

XML documents consist of the following components:

- *Content* – text, titles, pictures, etc.
- *Structure* – the organizational form that determines which content objects are permitted at any point in a document, as well as how these objects are displayed in various viewers (such as Internet Explorer)

For the XML document to be valid, its structure must adhere to the Document Type Definition (DTD) the document refers to.

Physical representation of the structure in an XML document is *markup* – start and end tags that wrap each *element* in the document. Markup can be simple, such as for paragraphs (<paragraph> Paragraph text </paragraph>), or complex, such as for *tables*. In any event, creating a valid XML document with the use of XML means requires certain degree of proficiency.

PASAT enables you to create patent specifications in the XML format required by USPTO with little or no XML knowledge. You are using the familiar MS Word with a slightly modified interface to create a specification, and then PASAT exports it as an XML *instance*.

As you edit specifications, behind the scenes PASAT handles the XML-required structure of the document based on the USPTO Document Type Definition (DTD) and Stylesheet (XSL file). An overview of the USPTO DTD is given in Appendix A.

Generally, the PASAT workflow is:

1. Import an XML document, Load a PASAT file or create a New specification.
2. Edit the contents of the specification.
3. Save the specification (when and if needed) as *.s4w* file for future editing.
4. Validate the specification against the USPTO DTD and correct the errors revealed.
5. Optionally, preview the specification as an XML instance in an Internet browser.
6. Export the specification as an XML instance ready for submission to USPTO.

This Authoring Guide assumes that you are familiar with MS Word 97 and with the traditional paper-based patent application specification authoring process. Therefore, it describes only the PASAT-specific procedures required for creating patent specifications as XML instances.



Each section of this manual includes:

- A brief overview of an operation to clarify why and when the operation is performed.
- Step-by-step instructions.
- System responses.
- Examples.
- "Behind the scenes" notes that summarize the XML activities PASAT performs behind the scenes.

Conventions Used in This Manual

The following list contains the conventions used in this manual to represent common terms, emphasize items, and help you identify certain text.

- *Italic* indicates emphasis, e.g., "All Specifications *must* be successfully validated before they are submitted."
- ***Bold Italic*** indicates that an item is found in the glossary list (See Appendix A). The first instance of a term in a section appears in bold italic, e.g., "WordPerfect validates your Specification document against a ***DTD***." Subsequent instances appear as normal text.
- Text contained within angle brackets indicates the name of an element or tag, e.g., "the **<paragraph>** element".
- A series of pop-up menu selections is written as Start/Programs/Accessories/Imaging. This means click on the Start button and move the cursor to Programs in the pop-up window, then to Accessories in the next pop-up window, and finally click on Imaging in the last pop-up window.

Note: ... Text with a Note box contains helpful hints you may use to aid the authoring process.

Behind the Scenes, PASAT Notes that summarize the XML activities PASAT performs behind the scenes.



This symbol indicates that the included text is additional information that may be helpful to you.



This symbol is used to stress a warning or reminder.



INSTALLING PASAT

Installation Process

The general procedure for installing PASAT v. 4.0 is:

1. Uninstall any previous versions of PASAT.
2. **For Windows 98 only**, ensure you have Windows 98 Second Edition (SE) or Windows 98 with the Customer Service Pack installed.
For Windows 95 only, ensure you have Windows 95 Service Pack 1 or greater installed.
For Windows NT only, ensure you have Windows NT 4.0 Service Pack 3 or greater installed.
3. Ensure you have Windows Imaging.
4. Install the latest version of AlternaTIFF.
5. Install PASAT v. 4.0.
6. **For Word 2000 only**, ensure the Microsoft Word 2000 macro security level is set to Low.
For Word 97 only, ensure Microsoft Word 97 has Service Release 2 or greater installed.
7. Ensure the Office Assistant is enabled.

PASAT v. 1.1 Uninstallation

If you have a previous version of PASAT installed, you must uninstall it prior to installing PASAT v. 4.0. To uninstall a previous version of PASAT, do the following:

1. From the Start menu, select Settings, then click Control panel.
2. Double-click Add/Remove Programs.
3. Select PASAT and click Change/Remove.
4. In the Welcome dialog, select Remove, and click Next.
5. When asked if you want to completely remove the application, click Yes.
6. If the Shared File Detection dialog appears, click Yes to delete the file specified, or No to keep the file.
7. In the InstallShield Wizard Complete dialog, click Finish.



8. When asked if you would like to delete log files, click Yes to delete the files, and No to keep them. It is recommended that you keep these files if you have had problems with PASAT.

Windows 98 Second Edition, or Windows 98 with Customer Service Pack

(For Windows 98 Only)

Prior to installing PASAT v. 4.0, ensure that the Windows 98 version you have is either Second Edition or has the Customer Service Pack installed. To check for these requirements, do the following:

1. Right-click the My Computer icon on the desktop.
2. Select Properties.
3. Note the version of Windows 98 or whether it has the customer service pack installed.

If you do not have Windows 98 Second Edition or Windows 98 with the customer service pack installed, you can download the customer service pack from:

<http://www.microsoft.com/Windows98/downloads/default.asp>

Windows 95 Service Pack 1

(For Windows 95 Only)

Prior to installing PASAT v. 4.0, ensure Windows 95 Service Pack 1 or greater is installed. To check for service packs, do the following:

1. From the Start menu, go to Settings, then to Control Panel, and select System.
2. Select the General tab, and note the Windows 95 version.

If the version is listed as 4.00.950, you do not have service pack 1 or greater installed. In this case, download it from:

<http://support.microsoft.com/support/servicepacks/Windows/95/>

Windows NT 4.0 Service Pack 3

(For Windows NT Only)

Prior to installing PASAT v. 4.0, ensure Windows NT 4.0 Service Pack 3 or greater is installed. To check for service packs, do the following:

1. Double-click the My Computer icon on the desktop.
2. From the Help menu, select About Windows.
3. Note the service pack (SP).

If you do not have service pack 3 or greater installed, you can download it from:



<http://support.microsoft.com/support/servicepacks/WinNT/4.0/>

Windows Imaging

Windows imaging is used to view and print TIFF images, which is the graphic format used by PASAT v. 4.0. To ensure you have Windows Imaging installed, do the following:

1. From the Start menu, go to Programs, then Accessories.
2. Ensure Imaging is listed under the Accessories folder.

AlternaTIFF TIFF Viewer

AlternaTIFF is required for viewing images in specifications in Internet Explorer. If you do not have AlternaTIFF, and want to be able to view TIFF images in your specification in Internet Explorer:

1. Open your web browser and navigate to <http://www.alternatiff.com/>.
2. Download and install the latest version of AlternaTIFF.

PASAT v. 4.0 Installation

Before installing PASAT v. 4.0, it is highly recommended that you shut down any applications that may be running on your machine.

To install PASAT v. 4.0, do the following:

1. Double-click the Pasat.exe file.
2. In the Welcome dialog that appears, click Next.
3. In the License Agreement dialog, click Yes to accept the License Agreement.
4. In the Choose Destination Location dialog, click Next to accept the default installation location.

To select an alternate location, click Browse, select an installation location, click OK, and then click Next in the Choose Destination Location dialog.

5. In the Setup Type dialog, select the type of setup you want, and then click Next. The default is Typical, which is recommended.
6. In the Select Program Folder dialog, click Next to accept PASAT as the PASAT program folder name.

To use another name, either enter it in the Program Folders text box, or select one from the Existing Folders list, and then click Next.

7. In the InstallShield Wizard Complete dialog, click Finish to restart your computer.

To restart your computer manually later, select No, I will restart my computer later, and then click Finish.



Microsoft Word Macro Security Level

(For Word 2000 Only)

Prior to using PASAT v. 4.0, you must ensure the Microsoft Word 2000 macro security level is set to low. To do this:

1. Open Microsoft Word 2000.
2. From the Tools menu, go to Macro and then click Security.
3. From the Security Level tab, ensure Low is selected.

Microsoft Word 97, Service Release 2 or greater

(For Word 97 Only)

PASAT v. 4.0 requires that Microsoft Word 97 must have service release 2 or greater installed. To ensure you have service release 2 or greater installed, do the following:

1. Launch Microsoft Word 97.
2. From the Help menu, select About Microsoft Word.
3. Check the service release (SR).

If you do not have service release 2 or greater installed, you can download it from:

<http://office.microsoft.com/Downloads/9798/sr2off97detail.aspx>

Office Assistant

Prior to using PASAT v. 4.0, you should ensure the Microsoft Word Office Assistant is enabled.

To do this:

1. Open Microsoft Word. If the Office Assistant is visible, it is enabled and you may proceed with the next section. Otherwise, continue with the next step.
2. From the Help menu, select Show the Office Assistant.

PASAT v 4.0 Uninstallation

PASAT v. 4.0 is easily uninstalled at any time. This section provides instructions for uninstalling

After PASAT 4.0 is uninstalled, there might still be S4 references in the Visual Basic editor. Note that these references are not selected, and will not affect Microsoft Word in any way.

To uninstall PASAT v. 4.0:

1. From the Start menu, select Settings, then click Control panel.



2. Double-click Add/Remove Programs.
3. Select PASAT and click Add/Remove.
4. In the Welcome dialog, select Remove, and click Next.
5. When asked if you want to completely remove the application, click Yes.
6. If the Shared File Detection dialog appears, click Yes to delete the file specified, or No to keep the file.
7. In the InstallShield Wizard Complete dialog, click Finish.
8. When asked if you would like to delete log files, click Yes to delete the files, and No to keep them. It is recommended that you keep these files if you have had problems with PASAT.



KEYS TO A “STRESS-FREE” ELECTRONIC SUBMISSION

1. Get your Customer Number and PKI Digital Certificate
2. Scan or convert all images (using settings specified – 300x300 dpi, Black & White, CITT Group 4 Compression, 8 ½ x 11 in. for drawings and forms)
 - a. Inline graphics
 - i. Complex Chemical Structures
 - ii. Math Equations
 - iii. Tables
 - iv. Custom Characters
 - b. Drawings (Figures)
 - c. Declaration Forms
 - d. Assignment Documents
 - e. Small Entity Statements
3. Naming your files and folders:
 - a. File names are limited to 25 characters and **MUST** be Alphanumeric
 - a. The “8.3” file naming convention is recommended
 - b. 8=the file name; 3=the file extension (*.wpd, *.s4t, *.doc, etc)
 - b. Attached files and submission folders should not contain special characters (e.g. &, #, %). Please provide alphanumeric characters, underscores and/or dashes.
 - c. When creating your ePAVE submission folder, the submission folder name **MUST** differ from the names of any submission files/figures that will be included in the submission
4. If authoring from a source document(s), convert source document text to Arial, CG Times or Times New Roman
5. Create a working or “source” document folder on a local or shared drive to store all files relating to the submission

Note the file naming convention mentioned above
6. Copy all specification-related files into this folder:
 - a. All images (see list above)
 - b. Source document(s)
 - c. The PASAT authored specification will be saved in this location



IMPORTANT NOTE: Once you have begun authoring your specification, DO NOT move any files from this folder.

Example: Images inserted into a PASAT document are NOT embedded in the document. There is a HYPERLINK created to the file path of the image. If the image is moved from the folder once it has been inserted into the PASAT document, the hyperlink will not be able to find its path.

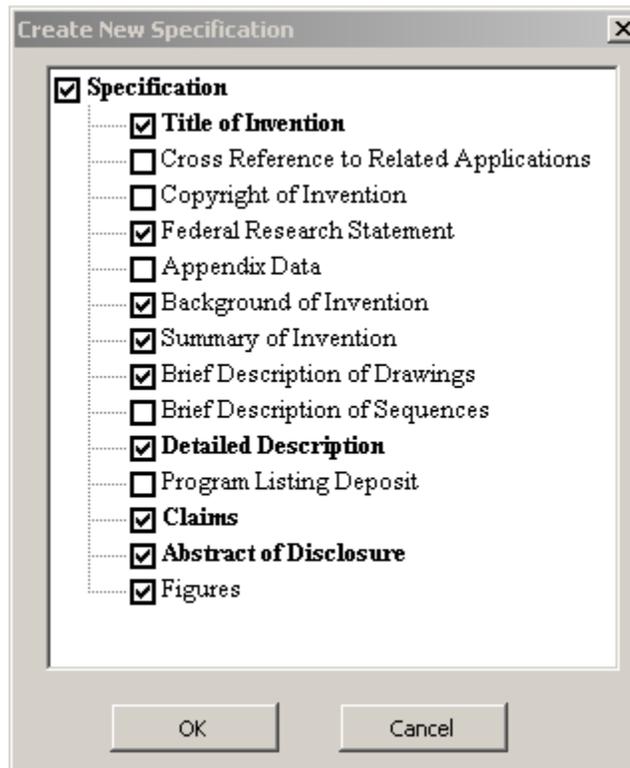
7. Launch your source document
8. Launch PASAT
 - a. Author Specification
 - Save Specification
 - b. Validate
 - Edit and/or Save Specification
 - c. View/Export
 - Edit and/or Save Specification
9. Launch ePAVE
 - a. Author
 - b. View/Print
 - c. Submit



GETTING STARTED

Preparing a Patent Application in PASAT

1. Scan or convert all graphics to CCITT Group 4 Compression TIFF images.
 - Chemical or mathematical formulae
 - Figures of drawings
 - Tables
2. If using source document(s), convert source text to CG Times or Times New Roman.
3. From the File menu create a new application by selecting New Specification.
4. Select the sections that you want to include in your application.



Create New Specification Window

5. Type your specification directly into PASAT.

OR

Copy-and-paste text from an existing source document into PASAT. PASAT will enter the XML tagging for paragraphs, superscripts, subscripts, and translate symbols into the specification. In the Claims section, PASAT will enter that claim tagging for your claims.



6. The apparatus of claim 3 where said electrodes are interdigitated electrodes disposed on an inert substrate and polystyrene is deposited on said substrate between fingers of said electrodes.

(c)

7. The apparatus of claim 3 where said sensing element is a thin film sandwiched between said first electrode and said second electrode.

(c)

8. The apparatus of claim 3 further including a housing containing said sensing element and said electrodes where said housing has a gas inlet nozzle and a gas outlet nozzle.

Part of the Claims Section of a Specification – Unnumbered

6. Attach your Figures of drawings using the Figure Manager.

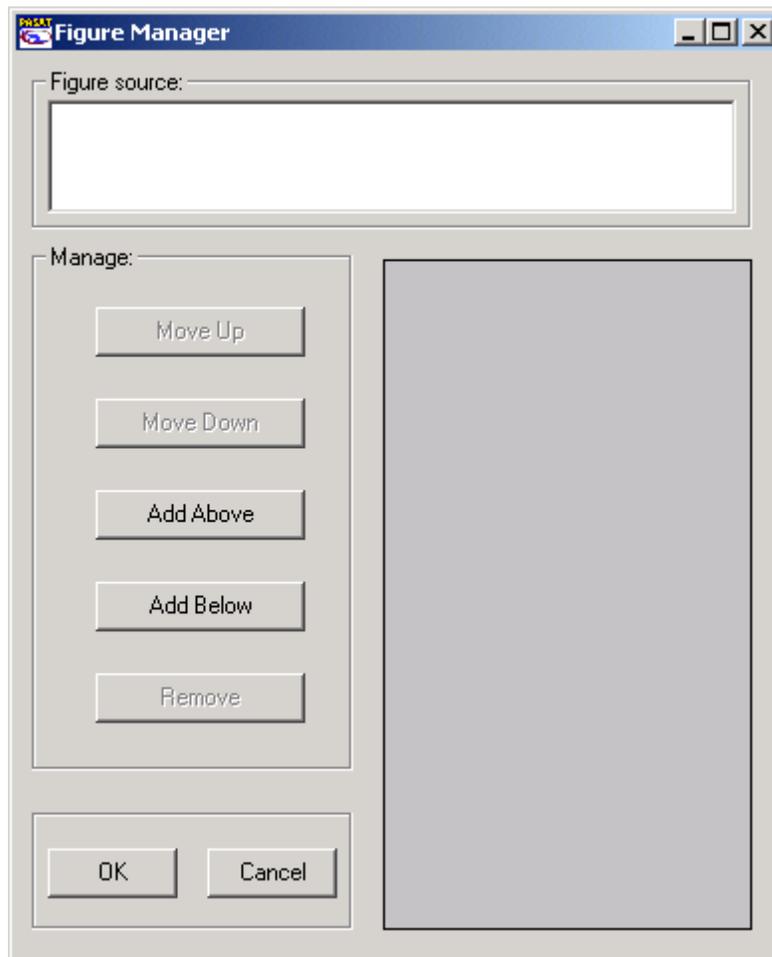


Figure Manager Window

7. From the Tools menu, use the Renumber feature to renumber your paragraphs, claims, and tables.



[c4]

4. The apparatus of claim 3 further including means for converting said conductance or resistance value to an amount of nitrogen dioxide present in said gas.

[c5]

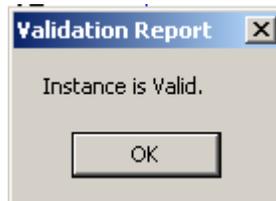
5. The apparatus of claim 3 where said electrodes are interdigitated electrodes and are encapsulated in polystyrene.

[c6]

6. The apparatus of claim 3 where said electrodes are interdigitated electrodes disposed on an inert substrate and polystyrene is deposited on said substrate between fingers of said electrodes.

Part of the Claims Section of a Specification - Numbered

8. Use the Validation feature to check your specification for any errors.



Validation Report Window

9. Save your tagged specification by choosing Save Specification from the File menu.

10. Preview your XML specification by choosing the Preview icon on the tool bar. This will launch Internet Explorer and allow you to view and print your specification.

[0012] $c = \frac{d}{P t \sigma}$

[0013] where σ is in Siemens/cm, t =thickness of the sensing element, and c =conductance in Siemens. As can be seen from the equation, as p/d increases, the conductance increases. The ratio of p/d can be viewed as an inherent amplification factor.

[0014] In the experimentation, the sensor was mounted in a teflon block having gold pressure contacts and the leads were attached to a Keithley 616 digital electrometer. One of the electrodes was biased using a 1.45 volt mercury cell. Conductance data as a function of time were recorded with an IBM PC/AT computer equipped with a 12-bit analog to digital convertor. The sensor mounted in the teflon block was placed inside a glass housing with provisions for electrical leads to pass through the housing for connection to the electrometer. The housing was evacuated using a vacuum pump and nitrogen was added to bring the pressure inside the housing to 540 Torr. Nitrogen dioxide gas withdrawn from the cylinder containing liquid N_2O_4 was added to the housing to bring the pressure up to 600 Torr, thus producing a 10 vol % nitrogen dioxide in nitrogen atmosphere inside the housing.

Part of the Detailed Description Section of a Specification - Numbered



11. Save your final XML tagged specification by selecting Export Specification from the File menu.

Note: Non-required sections can be added to/deleted from the specification at any time during the editing process. For details, refer to the Editing Specification Sections section.



INTERFACE FEATURES

Once you have loaded, imported, and/or created a new specification, the PASAT features come into play. Some of them are visible in the MS Word window; some are hidden behind the scenes. This chapter offers a brief overview of these features. Their use is described in detail in the subsequent chapters.

PASAT Shortcuts

After you have installed PASAT on your machine, the PASAT shortcut appears on your desktop. When you use this shortcut, MS Word launches with the following new options in the File menu:

- New Specification – prompts you to define the skeleton for the new Specification, then displays the new Specification as an MS Word document
- Load Specification – loads a Specification saved as .s4w file and displays it as an MS Word document
- Save Specification (grayed out/unavailable) – saves the current Specification as .s4w file (for details, refer to the [Saving Specifications](#) section)
- Import XML Specification – imports an XML instance and displays it as an MS Word document
- Export XML Specification (grayed out/unavailable) – exports the current Specification as an XML instance (for details, refer to the [Exporting Specifications](#) section)

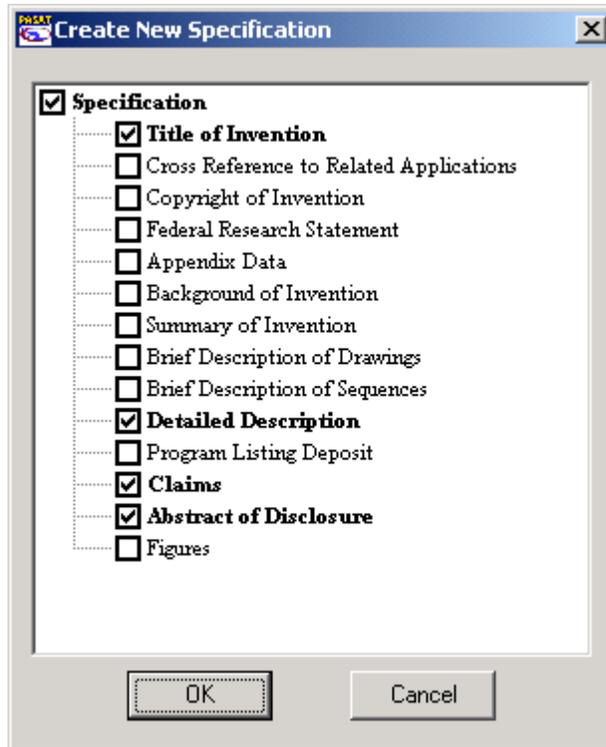
By selecting the New Specification, Load Specification or Import XML Specification option, you initiate the PASAT workflow, which is described in the subsequent sections.

If you select the **New** or **Open** option from the **File** menu, or click the **New** or **Open** toolbar button, the application returns control to MS Word and your regular Word menus and settings take precedence.

Creating New Specifications

To create a new specification from scratch:

1. From the File menu, select the **New Specification** option, and the Create New Specification dialog is displayed (see below).



Create New Specification Window

This dialog includes all sections allowed in a specification by the DTD. The required sections are shown in bold. By default, all required sections are selected (and can not be deselected).

1. To include a section in the specification you are going to create, click the check box adjacent to its name.
2. After all additional sections for this application have been selected click **OK**.

The new specification is displayed in the MS Word window in the Tags Off mode (looks like a regular MS Word document), ready for editing. The document layout includes the titles of the sections you have selected.

Behind the scenes, PASAT

- Creates a skeleton specification with the sections you have selected.
- Inserts the appropriate XML elements into the instance, according to the DTD.
- Applies the *formatting template* to the new document.

***.s4w File with Extra Sections after First Specification End Tag**

User authored a specification in Windows 2000 with Word 2000. PASAT created an *.s4w file with an extra claims section, abstract section, and figures section after the first end specification tag.

Following the extraneous sections, there was an end specification block tag and a second end specification tag. The document validated and was successfully exported to XML

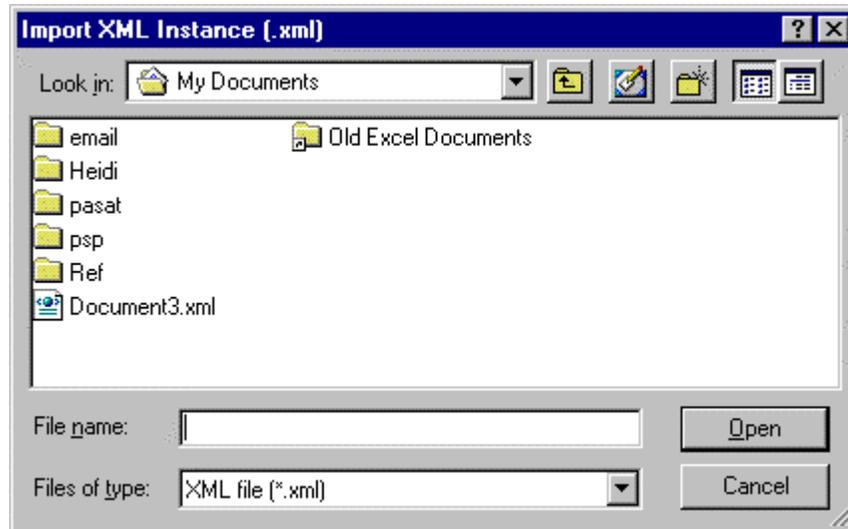


without the extra sections. The extra sections could not be removed. Attempting to remove them caused a Winword error and required PASAT to be restarted.

Importing Specifications

To import a specification that has been exported as an XML instance:

1. Select the **Import XML Specification** option from the File menu, and the Import XML Instance dialog is displayed (see below).



Import XML Instance Window

2. In the dialog, locate the XML file you want to import and click **Open**.

If the selected XML file is valid (conforms to the USPTO DTD), it is displayed in the MS Word window in the Tags Off mode (looks like a regular MS Word document), ready for editing. If the instance is invalid, the import aborts and the appropriate warning is displayed.

Behind the scenes, PASAT

- Validates the selected XML file against the USPTO DTD
- Resolves graphic references
- Applies the formatting template to the document
- If the selected .xml file is invalid, generates the Error Log file

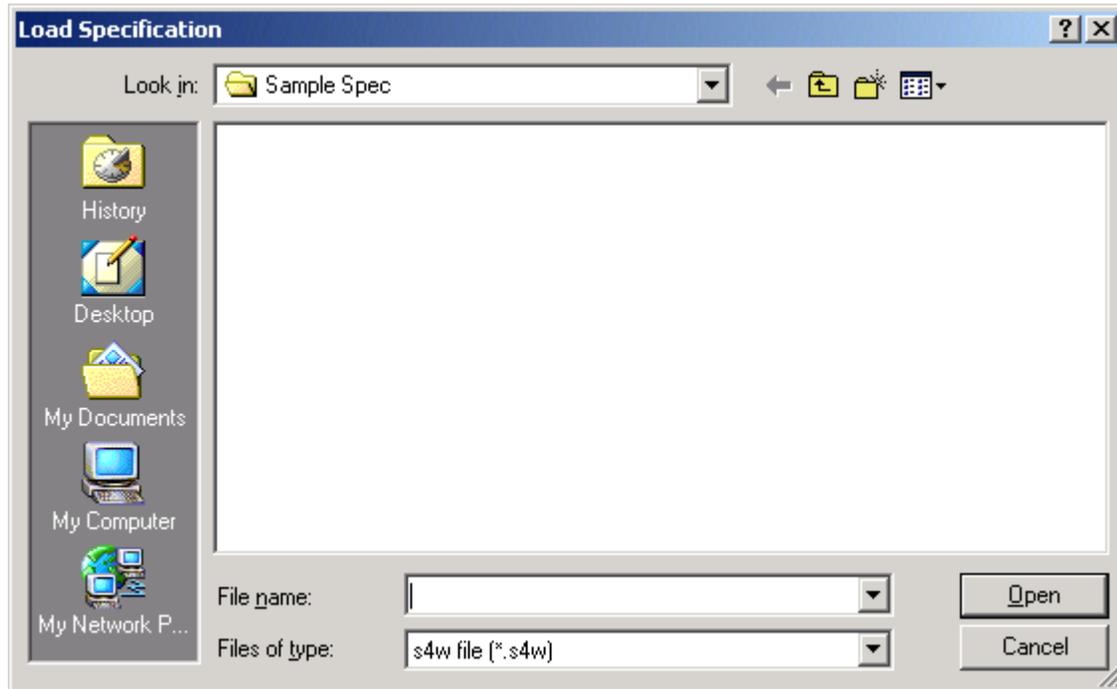
Note: The XML instances that failed to import, along with the corresponding Error Log files, should be sent to your technical support organization. Error Log files are generated in the same directory and with the same name as the original .xml files, but with the extension .err (<name>.err).



Loading Specifications

To load a specification that has been saved as .s4w file:

1. Select the **Load Specification** option from the File popup menu, and the Load Specification dialog is displayed.



Load Specification Window

2. In the dialog, locate the specification (.s4w file) you want to load and click the **Open** button.

The selected specification is displayed in the MS Word window in the Tags Off mode (looks like a regular MS Word document), ready for editing.

Popup Menus and Menu Options

Although the names of popup menus on the menu bar remain the same as in MS Word, some of the menu options are renamed, removed, added or modified.

File Menu

The added options are described in [Saving and Exporting Specifications](#), with the exception of **Preview in Browser**, which creates a temporary XML instance of the current specification and displays it in your default Internet browser.



Edit Menu

- **Undo** – reverses the last operation on the Undo list (up to 6 operations)
- **Cut** – copies the current selection (content and markup) to the clipboard and deletes it from the original location
- **Copy** – copies the current selection (content and markup) to the clipboard
- **Paste** – pastes the clipboard content (excluding markup) at the specified location
- **Paste Structure** – pastes the clipboard content (including markup) at the specified location
- **Paste Table** – pastes non-structured tables (copied from regular MS Word documents) at the cursor location in the specification; converts the pasted table to a structured table, with all necessary tags inserted
- **Paste Paragraph(s)** – pastes the clipboard content at the specified location as multiple paragraph elements (text wrapped in the paragraph tags), split at hard returns
- **Paste Claim(s)** – pastes the clipboard content at the specified location in the Claims section as multiple claims (text wrapped in the claim and claim-text tags), split at hard returns
- **Find** – displays the Content Find and Replace dialog (the Find page)
- **Replace** – displays the Content Find and Replace dialog (the Replace page)

View Menu

- **View Tags** – toggles between the Tags Off and Tags On display modes of the specification
- **View Entities** - shows/hides entity names
- **View S4/Guide** - shows/hides the Office Assistant
- **Document Map** – shows/hides the Specification Map (a tree of the specification sections and elements) at the left-hand side of the MS Word window

Insert Menu

- **Symbol** – displays the Symbol dialog that enables you to insert HTML 4.0 named character entities at the cursor location
- **Picture** – displays the Figure dialog that enables you to insert graphics at the cursor location

Tools Menu

- **Renumber** – renumbers paragraphs, claims, or both starting from the beginning of the specification
- **Edit Sections** – displays the Edit Specification Sections dialog that allows sections to be added to/deleted from the specification at any time during the editing process.
- **Validate Instance** – validates the structure of the specification against the USPTO DTD and highlights the first error to be corrected
- **Spelling** – initiates the Batch Mode content spell-checker



Table Menu

- **Insert Table** – prompts you to define the table type (scanned or MS Word table) and (for MS Word tables) size, then inserts the new table at the specified location
- **Convert Table** – toggles between the rendered and unrendered display of the selected table
- **Insert** – inserts a new row or column
- **Delete** – deletes the row or column that contains the insertion point
- **Split Cell** – splits the selected table cell that was merged previously into the original two cells
- **Merge Cells** – merges the two selected table cells

Toolbars

Following is the description of the PASAT options available from toolbars.

File



Buttons on this toolbar duplicate the PASAT-specific options available from the File popup menu. Left to right on the bar:

- New Specification
- Load Specification
- Save Specification
- Import XML Specification
- Export XML Specification
- Print Specification
- Print Preview Specification
- Spell Check Specification
- Preview in Browser
- Show/Hide XML tags
- Show/Hide Specification map
- Help

Edit



Buttons on this toolbar duplicate the PASAT-specific (new or modified) options available from the Edit popup menu. Left to right on the bar:

- Cut
- Copy
- Paste
- Undo



Format



Left to right on the bar:

- **Italics** - will appear as italic text when viewing text in PASAT. When viewing the same text in web browser using the USPTO standard style sheet for the specification the text will appear in italics.
- **Superscript** – converts the selected text to superscript or inserts superscript formatting at the cursor location, so that the content you type in appears as superscript. If the cursor is in a superscript section, PASAT removes superscript formatting from this section.
- **Subscript** – converts the selected text to subscript or inserts subscript formatting at the cursor location, so that the content you type in appears as subscript. If the cursor is in a subscript section, PASAT removes subscript formatting from this section.



Indentation



Claim-text elements support five levels of indentation. The buttons on this toolbar enable management of the claim-text indentation. Left to right on the bar:

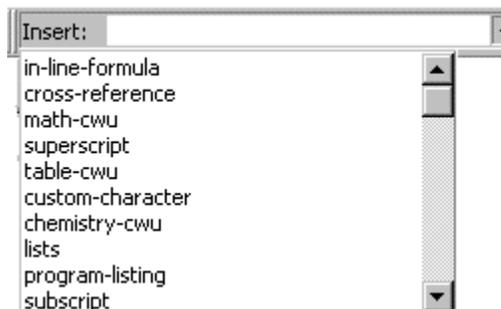
- Decrease Indent – moves the selected claim-text element one indentation level left
- Increase Indent – moves the selected claim-text element one indentation level right

File Menu in PASAT

Launch PASAT and select a new specification. This builds the specification including edits, tables, etc. In the Tools drop down menu there are no choices. The functionality is available in the Office Assistant but not in the file menu. Windows NT service pack 5, Word 97. No templates or add-ins.

Insert List

The Insert dropdown list is located at the right-hand side of the PASAT toolbar:



Insert drop down list

In the course of the specification editing, you select the elements to be inserted from this list. The list options changes so that you can only select those elements that are allowed at the current cursor position in the document (according to the DTD).

Shortcut Keys

The following shortcut keys are also part of the PASAT interface:

- Ctrl+b** – duplicates the Bold toolbar button
- Ctrl+x** – duplicates the Cut option on the Edit menu
- Ctrl+c** – duplicates the Copy option on the Edit menu
- Ctrl+v** – duplicates the Paste option on the Edit menu
- Ctrl+z** – duplicates the Undo option on the Edit menu
- Enter** – splits a paragraph or a claim-text element at the cursor position



Ctrl+o – opens regular MS Word document

Ctrl+- – duplicates the Superscript toolbar button

Ctrl+= – duplicates the Subscript toolbar button

Ctrl+f – initiates the Find and Replace function

Ctrl+Shift+v – initiates the Paste Structure function

Ctrl+l – pastes claims or paragraphs

Ctrl+r – repeats last Insert Symbol operation

Ctrl+y – displays the Symbol Manager dialog

Ctrl+s – saves specification

Ctrl+t – toggles tag display mode

Ctrl+Left Arrow – as in MS Word

Ctrl+Right Arrow – as in MS Word

Ctrl+Up Arrow – as in MS Word

Ctrl+Down arrow – as in MS Word

Ctrl+Enter – splits claim or paragraph at the insertion point; in a claim, splits the entire claim where a regular Enter key splits the current claim-text element only; in a paragraph, creates a new paragraph

F1 – initiates Online Help

F7 – initiates Spell Checker

Ctrl F5 – renumbers all paragraphs and claims in the specification

Ctrl F6 – initiates the Validate Document function

Ctrl F7 – initiates the Preview in Browser function

Ctrl F8 – exports the specification as XML instance

Tab – in tables, works as in MS Word

Home – as in MS Word

Ctrl+End – as in MS Word

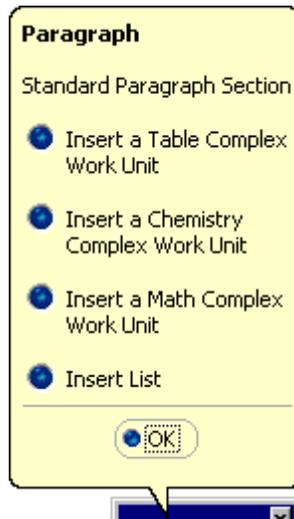
Ctrl+Home – as in MS Word

Shift+Home – as in MS Word



Office Assistant

When working with PASAT, the familiar Office Assistant feature provides you with context-sensitive PASAT help.



Office Assistant options for a Standard Paragraph Section in PASAT

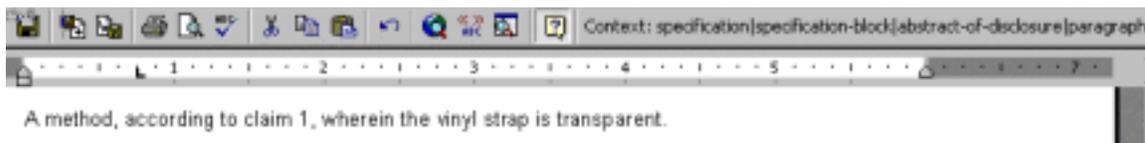
The top line in the Assistant callout tells you what element the cursor is currently in (Paragraph, Claim, etc.). The bulleted list enables you to initiate the most common operations allowed at the current cursor position.

Status Bar

The Status Bar in the top right section of the MS Word window displays the "ancestry line" of the element the cursor is currently in.

Example

The cursor is within a paragraph, which is a part of the Abstract of Disclosure section, which is a part of the Specification Block, which is a part of the Specification. The Status Bar reads: specification|specification-block|abstract-of-disclosure paragraph.



Disabled MS Word Features

The following MS Word features are disabled in PASAT in order to facilitate the XML activities behind the scenes:

- AutoCorrect
- AutoFormat As You Type



- AutoFormat
- AutoText
- Fast Save
- Background Save
- Drag and Drop Editing
- Automatic Word Selection
- Insert Key for Paste
- Smart Cut and Paste
- Allow Accented Uppercase
- Indent Set by Tab Key
- Create Backup Copy
- Track Changes

Note: The AutoRecover feature is not disabled. However, you should be aware of the fact that the recovered documents will not contain any of the XML markup. They will be just regular MS Word documents.



EDITING SPECIFICATIONS

This chapter describes all of the operations you may need to perform in order to create or modify a specification with PASAT.

Changing Tag and Entity Display

By default, the PASAT files are displayed in the MS Word window in the Tags Off mode (with tags hidden), which makes the specifications look like regular MS Word documents. The entities, by default, are displayed as the special characters they represent.

Showing/Hiding Tags

PASAT handles all the XML-related operations behind the scenes, so that there is no need to see the XML markup (tags) in the normal course of specification editing. If, however, you want to display the tags – for example, for diagnostic purposes – PASAT lets you do so at any time.

To toggle between the Tags Off and Tags On modes, select View Tags from the View menu. If the tags were hidden, PASAT displays them and *vice versa*.

Example of Tags Off

[0010] The use of vinyl material for this invention is responsible on its own, for providing functional restriction of equipment slippage identical in efficiency to that provided by disposable adhesive athletic tape at a considerable reduction in expense, owing to the reusable nature of the strap.

What is Claimed is:

[c1] A method of securing protective equipment to a hockey-player's leg by wrapping a reusable vinyl strap over the equipment and around the leg, said vinyl strap comprising: a rectangular strip of 8-gauge to 12-gauge vinyl in lengths of 30" to 240", in widths of 1" to 1 1/2", in a solid color.

Example of Tags On

[0010]<paragraph> The use of vinyl material for this invention is responsible on its own, for providing functional restriction of equipment slippage identical in efficiency to that provided by disposable adhesive athletic tape at a considerable reduction in expense, owing to the reusable nature of the strap. </paragraph>

</detailed-description><claims>

<heading>What is Claimed is:</heading>

[c1]<claim> <claim-text> A method of securing protective equipment to a hockey-player's leg by wrapping a reusable vinyl strap over the equipment and around the leg, said vinyl strap comprising: a rectangular strip of 8-gauge to 12-gauge vinyl in lengths of 30" to 240", in widths of 1" to 1 1/2", in a solid color. </claim-text>
</claim>

Note: When a table is rendered, the tags of the table elements (row, entry, etc.) are hidden even if the document is in the Tags On mode. The tags of the table itself (<table> and </table>) are shown. For details, refer to the [Rendering and Unrendering](#) section.



Changing Entity Display Mode

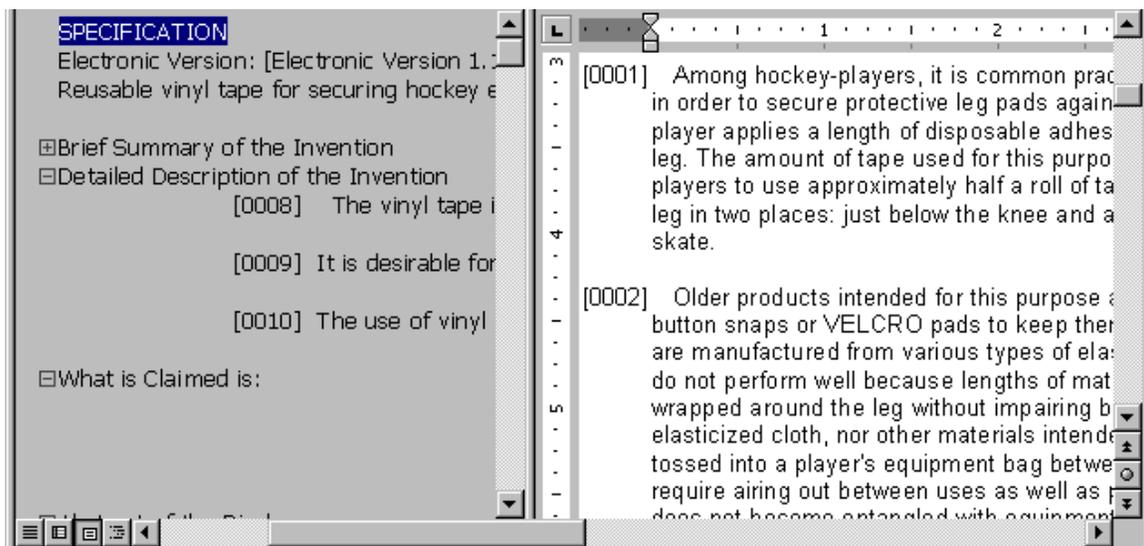
If, for some reason, you want to display the special character entities embedded in your specification as XML codes, you can do that at any time.

To view either the Symbol and Code for a special character highlight the special character in the specification text and then select the **View Entities** option from the View menu. The View Entities option has a toggle function whereby if you select View Entities once it will display the code equivalent for the special character symbol and if you select it a second time the inserted character symbol is displayed.

In brief, if the entities were displayed as special characters, PASAT displays them as codes and *vice versa*.

Using the Specification Map

The Specification Map is a tree of the specification sections and elements.



Specification Map to the Left of a Specification

The appearance and functionality of the Specification Map are similar to those of the Document Map in regular MS Word documents. You use the Map feature to navigate through the specification.

Showing/Hiding the Map

To show/hide the Specification Map, select **Document Map** from the View menu. If the map was hidden, PASAT displays it and *vice versa*.

Navigating Specifications with the Map

To expand a collapsed section of the specification tree, **click the corresponding node** (marked with the "+" sign).



To collapse an expanded section of the specification tree, **click the corresponding node** (marked with the "-" sign).

To display a section/element of the specification in the MS Word window, **click its title** in the specification tree.

To highlight an element in the specification tree, **position the cursor** within this element in the specification.

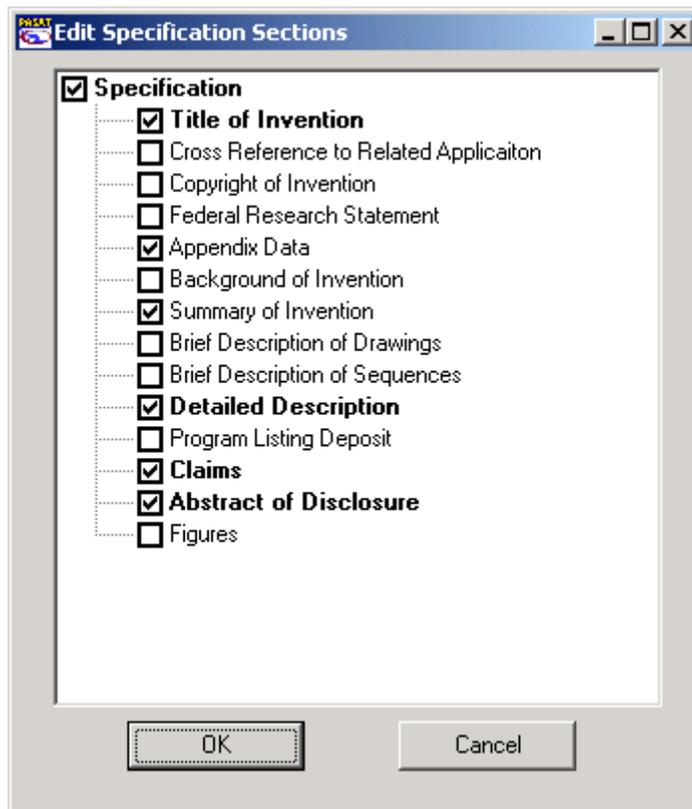
Editing Specification Sections

PASAT enables you to add sections to or delete them from the specification at any time during the editing process.

Note: You cannot delete sections that are defined as required.

To edit the specification sections:

1. Select the Edit Sections option from the Tools popup menu. The Edit Specification Sections dialog is displayed. Its layout and functionality are identical to those of the Create New Specification dialog, which you use while creating a new specification.



Edit Specification Sections Window

2. Check/clear the check boxes adjacent to the section names to add/delete the corresponding sections.



3. Click the OK button. If you have requested that one or more sections be deleted from the specification, a confirmation box is displayed.
4. To confirm the section deletion request, click the OK button. The dialog closes. The sections are added to/deleted from the specification as per your definition.

Behind the scenes, PASAT adjusts the instance structure accordingly (adds/removes the appropriate tags).

Managing Selections

Although this is not visible in the Tags Off mode, the PASAT specification you are working on is not a single flow of text, titles, tables, figures, etc., but a collection of XML elements – paragraphs, claims, etc. Each element is wrapped in its pair of tags – the start tag and the end tag. The outcome of a selection operation you perform depends on whether the selection crosses the element boundaries or, in other words, whether it includes any tags.

The possible cases are:

- The part of the specification you highlighted is entirely within a single element.

Example:

```
<paragraph> Text of the paragraph. </paragraph>
```

In this case, only the highlighted part is selected, as it would be in MS Word (without any tags).

- The part of the specification you attempt to highlight includes one or both element tags.

Example:

```
<paragraph> Text of the paragraph. </paragraph>
```

In this case, the entire element is selected, together with both tags.

- The part of the specification you attempt to highlight includes the end tag of one element and the start tag of the other element or, in the other words, crosses the element boundary.

Example:

```
<paragraph> Text of the paragraph. </paragraph> <paragraph> Text of another paragraph. </paragraph>
```

In this case, both elements are selected, together with their start and end tags.

Note: When a numbered element (a paragraph or a claim) is selected together with its tags, the number of the element appears highlighted.

You can select a numbered element, together with its start and end tags, by double-clicking its number.



Note: In the Tags Off mode, to select a non-numbered element together with its tags, extend the selection slightly beyond visual boundary of the element.

In the Tags Off mode, to select a formatted section (Italic, Superscript or Subscript) together with its tags, position the cursor either immediately before the first character of the section or immediately after the last character of the section and press the Shift+Left Arrow or Shift+Right Arrow combination on the keyboard.

Managing Paragraphs

PASAT supports the following paragraph management operations:

- Addition
- Splitting
- Pasting Paragraphs (described in section 5.8.5)
- Deletion
- Renumbering

Adding Paragraphs

To add a new paragraph to the specification:

1. Position the cursor at the required location in the corresponding section.
2. Do one of the following:
 - **Select Paragraph** from the Insert dropdown list, or
 - Click the **Insert New Paragraph** option in the Office Assistant callout.

A new (empty) paragraph appears at the specified location, along with a pair of brackets for the paragraph number ([]). The numbers are filled out by the Renumber Paragraph operation (refer to the [Renumbering Paragraphs](#) section for details).

Behind the scenes, PASAT

- Generates a unique *ID* for the new paragraph
- Inserts the new paragraph element at the specified location
- Positions the cursor between the start and end tags of the new paragraph element (<paragraph>|</paragraph>)

You can start keying in the paragraph text.

Splitting Paragraphs

To split a paragraph into two separate paragraphs:

1. **Position the cursor** at the required split position within the paragraph.
2. Press **Enter** on the keyboard.

The paragraph splits into two paragraphs:



- The one from the start of the original paragraph to the cursor position retains the original element number
- The one from the cursor position to the end of the original paragraph becomes a new element and receives a separate number. This new number does not appear until the Renumber Paragraphs operation is performed.

Example

Before pressing Enter:

[0010] The use of vinyl material for this invention is responsible on its own, for providing functional restriction of equipment slippage identical in efficiency to that provided by disposable adhesive athletic tape at a considerable reduction in expense, owing to the reusable nature of the strap

After pressing Enter:

[0010] The use of vinyl material for this invention

[0010] is responsible on its own, for providing functional restriction of equipment slippage identical in efficiency to that provided by disposable adhesive athletic tape at a considerable reduction in expense, owing to the reusable nature of the strap.

Behind the scenes, PASAT

- Wraps the content of the new paragraph element (from the cursor position to the end of the original element) in a new pair of tags
- Generates a unique ID for the new element

Notes: PASAT does not renumber paragraphs automatically after the split. Therefore, the original and the new paragraph have the same number until you perform the Renumber Paragraphs operation. For details, refer to the [Renumbering Paragraphs](#) section.

Pressing the Enter key when the cursor is at the very end of a paragraph (between the last character and the end tag) creates a new paragraph.

Pressing the Enter key when the cursor is positioned within a program-listing element adds a hard return to the text just as it would in MS Word. No element split occurs.

Deleting Paragraphs

To delete a paragraph as a whole:

1. **Double-click** the paragraph number to select the paragraph.
2. Press **Delete** on the keyboard.

The selected paragraph is removed from the specification (together with its number), as well as from the Specification Map.

Behind the scenes, PASAT removes the paragraph element from the specification.

Note: You cannot delete all paragraphs in a section. You may insert your correct paragraph and then go back and delete the incorrect paragraph. Or, you may delete the section in its entirety and re-enter the text.



Renumbering Paragraphs

As a result of adding, deleting and splitting operations, the paragraph numbers may get out of sequence: [0001] comes after [0003], [0012] between [0007] and [0004], etc.

To renumber paragraphs in a sequential manner, starting from the beginning of the specification, select **Renumber**, and then **Paragraphs** from the Tools popup menu.

Managing Claims

Claims have hierarchical structure. The main element in the hierarchy is the claim itself. It is represented by a number and can be referenced from other claims or paragraphs. Under the claim, an unlimited number of claim-text elements can be created. These elements have no numbers and cannot be referenced. The claim-text elements support up to five indentation levels, each of which corresponds to the position in the claim hierarchy.

Example (Two Indentation Levels)

```
<claim>
```

```
<claim-text> First indentation level </claim-text>
```

```
<claim-text><claim-text> Second indentation level </claim-text></claim-text>
```

```
</claim>
```

PASAT supports the following claim management operations:

- Addition of claims
- Pasting claims (described in section 5.8.6)
- Addition of claim-text elements
- Indenting claim-text elements
- Splitting claim-text elements
- Deletion of claim-text elements
- Splitting claims
- Deletion of claims
- Renumbering claims



Adding Claims

To add a new claim to the specification:

1. **Position the cursor** at the required location in the Claims section.
2. **Click the Insert New Claim** option in the Office Assistant callout.

A pair of brackets for the claim number appears at the specified location ([c]). Claim numbers are filled out by the Renumber Claims operation (refer to the [Renumbering Claims](#) section for details). You can start keying in the text of the claim.

Behind the scenes, PASAT

- Generates a unique ID for the new claim
- Inserts the new claim element at the specified location
- Inserts a new claim-text element within the claim element
- Positions the cursor between the start and end tag of the new claim-text element (<claim><claim-text>|</claim-text></claim>)

Adding Claim-text Elements

To add a new claim-text element under a claim:

1. **Position the cursor** at the required location within a claim.
2. Do one of the following:
 - Select the Claim-text option from the Insert dropdown list, or
 - Click the Insert New Claim-text option in the Office Assistant callout.

The cursor moves to the next line.

Behind the scenes, PASAT

- Inserts the new claim-text element at the specified location
- Positions the cursor between the element's start and end tags (<claim-text>|</claim-text>)

You can start keying in the text.

Indenting Claim-text Elements

In the Tags Off mode, claim-text elements appear as text sections separated by line breaks. Each of these sections can be positioned at one of the five available levels of indentation.

To change indentation of a claim-text element:

1. **Position the cursor** anywhere within the required element.

2. Click the **Increase Indent**  or **Decrease Indent** button on the toolbar. 

With each click of the toolbar button, indentation of the selected claim-text element increases or decreases, respectively.



Splitting Claim-text Elements

To split a claim-text element into two separate sections:

1. **Position the cursor** at the required split location within the claim-text element.
2. Press **Enter** on the keyboard.

The claim-text element splits into two elements at the cursor location. They both stay at the indentation level of the original element.

Behind the scenes, PASAT wraps the content of the new element (from the cursor position to the end of the original element) in a new pair of tags.

Deleting Claim-text Elements

To delete a claim-text element from a claim:

1. **Highlight the claim-text element** together with its tags (for details, refer to the [Managing Selections](#) section).
2. Press **Delete** on the keyboard. The selected claim-text element is deleted.

Behind the scenes, PASAT removes the element's content and tags from the specification.

Note: You cannot delete all claim-text elements in a section. You may insert your correct claim-text and then go back and delete the incorrect claim-text. Or, you may delete the section in its entirety and re-enter the text.

Splitting Claims

To split a claim into two separate claims:

1. **Position the cursor** at the required split location within the claim.
2. Press **Ctrl+Enter** on the keyboard.

The claim splits into two claims at the cursor location:

- The one from the start of the original claim to the cursor position retains the original element number
- The one from the cursor position to the end of the original claim becomes a new element and receives a separate number. This new number does not appear until the Renumber Claims operation is performed.

Behind the scenes, PASAT wraps the content of the new element (from the cursor position to the end of the original element) in a new pair of tags.

Deleting Claims

To delete a claim as a whole:

1. **Double-click the claim number** to select the claim.
2. Press **Delete** on the keyboard.



The selected claim is removed from the specification (together with its number), as well as from the Specification Map.

Behind the scenes, PASAT removes the claim element along with all claim-text elements it contained from the specification.

Note: In accordance with the USPTO DTD, the last claim in a section cannot be deleted. You can, however, delete its content.

Renumbering Claims

As a result of adding, deleting and splitting operations, the claim numbers may get out of sequence: [c1] comes after [c3], [c12] between [c7] and [c4], etc.

To renumber claims in a sequential manner, starting from the beginning of the specification, **select the Renumber** option from the Tools menu, and then **select the Claims** option from the sub-menu that appears.

Managing Claim Dependencies

PASAT supports the following management operations for the claim dependencies:

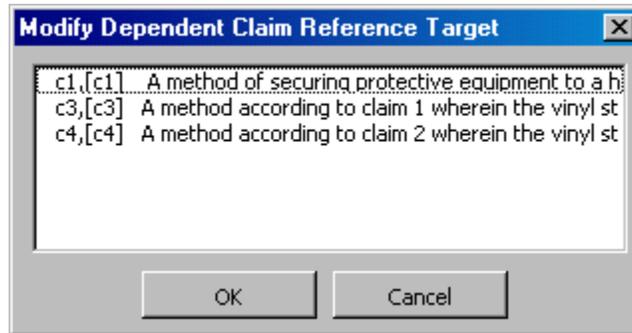
- Creating claim dependency references
- Redefining the reference targets
- Deletion of claim dependency references

Creating Claim Dependency References

To create a reference to a claim dependency from within a claim-text element:

1. Do one of the following:
 - **Position the cursor** at a location from which you want to reference a claim dependency.
 - **Select a section** of text (without tags)
2. Do one of the following:
 - **Select the Dependent-claim-reference** option from the Insert dropdown list, or
 - **Click the Insert Dependent Claim Reference** option in the Office Assistant callout.

The Modify Dependent Claim Reference Target dialog is displayed.



Modify Dependent Claim Reference Target Window

This dialog lists all the claims currently in the specification (except for the one the cursor is positioned in): ID, number and the beginning of the text.

3. **Highlight the required claim** on the list and **click the OK button**.

Behind the scenes, PASAT

- If text was selected, wraps this text in the dependent-claim-reference pair of tags; if no text was selected, inserts a dependent-claim-reference element at the specified location
- Positions the cursor inside the element, between its start and end tags (<dependent-claim-reference>|</dependent-claim-reference>)
- Sets the value of the element's "target" attribute to the ID you have referenced

4. Optionally, **type relevant text** (such as "Refer to..."). The text you type inside the dependent-claim-reference element is underlined in blue.



When the specification is viewed as an XML instance, the references are rendered as hyperlinks.

Redefining Reference Targets

To re-define the target of a claim dependency reference:

1. **Position the cursor** anywhere within the text of the required claim dependency reference (underlined in blue).
2. **Click the Edit Dependent Claim Reference** option in the Office Assistant callout, and the Modify Dependent Claim Reference Target dialog is displayed.
3. Proceed as described in the **Creating Claim Dependency References** section.

Behind the scenes, PASAT changes the value of the "target" attribute of the dependent-claim-reference element.

Deleting Claim Dependency References

To delete a claim dependency reference:

1. **Select the reference** to be deleted (the text underlined in blue together with the corresponding tags).



2. Press **Delete** on the keyboard.

The selected reference is deleted (both the element and the text).

Behind the scenes, PASAT removes the content and tags of the dependent-claim-reference element from the specification.

Formatting Text

PASAT supports three formatting options:

- Italic
- Superscript
- Subscript

The above options work similarly to their counterparts in MS Word:

- Formats can be applied and removed
- *Special characters* within the formatted section take on the same format the text has
- When you position the cursor within a formatted section, the corresponding button on the Format toolbar appears depressed

Applying a Format

To apply a formatting option:

1. Do one of the following:
 - Select a section of text you want to format, or
 - Position the cursor at a location where you want to type formatted text.
2. Do one of the following:
 - Click the required formatting button on the Format toolbar, or
 - Press the corresponding accelerator key(s) on the keyboard.
 - One of the following happens:
 - If you have selected a section of the text, this section is formatted.
 - If no text was selected, the format applies to the new text as you type it at the cursor location.

Behind the scenes, PASAT

- If text is selected, wraps the selection in a format element and applies the selected format to it (e.g., for Italic: `<emphasis> the selected text </emphasis>`)



- If no text is selected, inserts a new format element at the cursor location and positions the cursor between its start and end tags (e. g., for Italic: <emphasis>|</emphasis>)

Note: You can superimpose format options (e.g., italicize a superscript section). In the Tags Off mode, to select a formatted section together with its tags (for adding one more format option):

Position the cursor immediately before the first character of the section and press Shift+Right Arrow combination on the keyboard, or position the cursor immediately after the last character of the section and press the Shift+Left Arrow combination on the keyboard.

Removing a Format



You can remove format only from the entire formatted section, not from its parts.

To remove a format:

1. **Position the cursor** anywhere within the formatted section.
2. On the Format toolbar, click the **button that appears depressed**.

The format is removed from the selection.

Behind the scenes, PASAT "unwraps" the formatted section (removes the format start and end tags).

Note: It might happen that, as a result of the above operation, the format appears to have been removed from only part of the section. This would mean that you encountered a series of two or more contiguous, similarly formatted sections (e. g., italic: <emphasis>Text_1 </emphasis><emphasis>Text_2 </emphasis>). In the Tags Off mode, they look like a single formatted section (Text_1Text_2). Position the cursor within the part that remains formatted and repeat the operation.

Copying, Cutting and Pasting

PASAT supports the following clipboard operations:

- Copying
- Cutting
- Pasting
- Pasting Paragraphs
- Pasting Claims



Copying

The Copy operation copies a selection from a specification to the clipboard. If the copied selection includes tags, this operation copies markup along with the content.

To copy a selection to the clipboard:

1. **Select the section** to be copied.
2. Do one of the following:
 - Select the **Copy option** from the Edit menu, or
 - Click the **Copy button** on the toolbar, or
 - Press **Ctrl+c** on the keyboard.

Cutting

The Cut operation copies a selection from a specification to the clipboard and deletes it from its original location. If the selection includes tags, this operation cuts markup along with the content.

To copy a selection to the clipboard and delete it from its original location:

1. **Select the section** to be cut.
2. Do one of the following:
 - Select the **Cut option** from the Edit menu, or
 - Click the **Cut button** on the toolbar, or
 - Press **Ctrl+x** on the keyboard.

Pasting

The Paste operation pastes clipboard content at the cursor position in the specification. Content without markup is pasted as plain content. Content that includes markup will be pasted as marked-up content.



PASAT supports replacement of a selection with the clipboard content only if neither the selection nor the clipboard content include markup.

To paste the clipboard content:

1. **Position the cursor** at the location where you want the clipboard content to be pasted.
2. Do one of the following:
 - Select Paste from the Edit menu, or
 - Click the Paste button on the Edit toolbar, or



- Press Ctrl+V on the keyboard.

The clipboard content appears at the cursor location in the specification.

Note: If the clipboard contained characters (symbols) not supported by PASAT, in the specification they are replaced by the Unknown Symbol signs. You can delete the signs and/or replace them with the PASAT-supported symbols. For the replacement procedure, refer to the [Replacing Unknown Symbols](#) section.

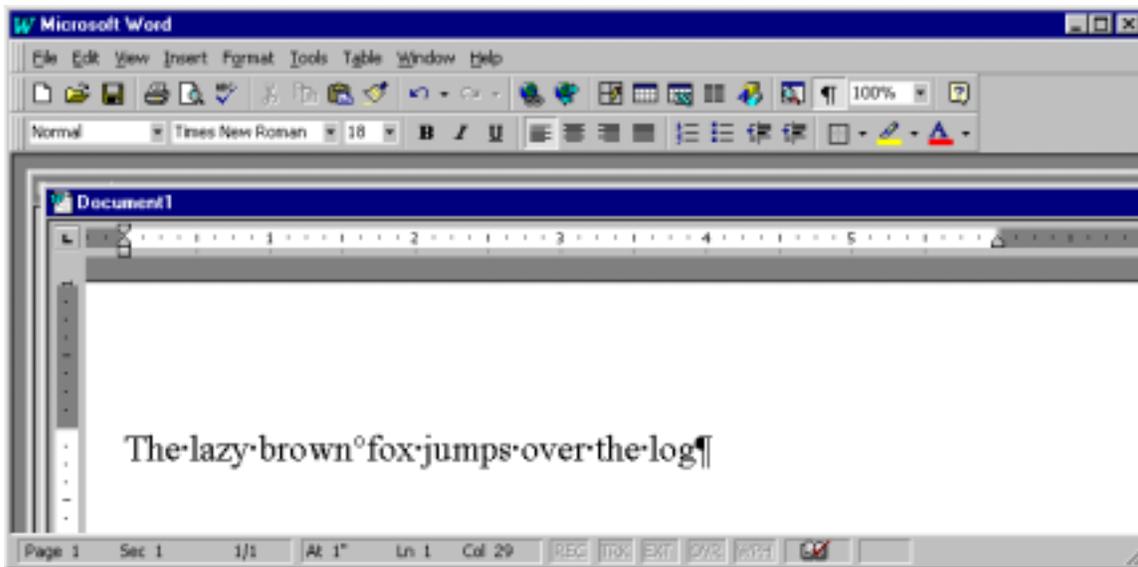
Errors in Pasting into PASAT

Content Loss in Paste to PASAT

Occasionally you may lose content when copying from a source document and pasting into PASAT. The following situations are known to cause this error:

Non-breaking spaces and hyphens:

In source documents with non-breaking spaces and hyphens both from MS Word and WordPerfect, PASAT loses the text string after the non-breaking character.



Microsoft Word Document Displaying Spaces and a Non-breaking Space

The degree-like symbol between "brown" and "fox" represents a non-breaking space (the non-breaking space is inserted by key stroking CTRL + SHIFT + SPACE) and when the sentence is edited those two words will always appear on a single line and will never be word wrapped. When symbol is pasted into PASAT this is the outcome:

The lazy brown jumps over the log

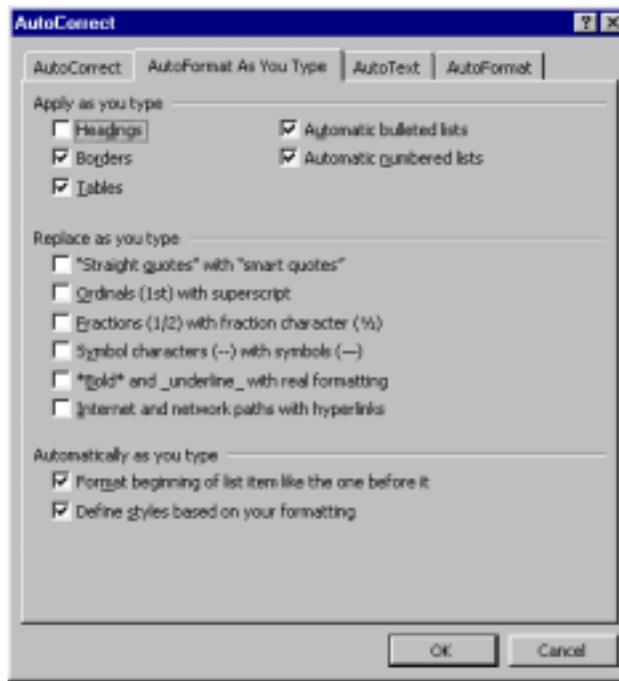
The text string of "fox" is lost.

A non-breaking hyphen (CTRL + HYPHEN) pasted into PASAT is displayed as an unknown symbol.



Smart Quotes, Apostrophes, Fractions, & Double Hyphens

Source documents (both MS Word & WordPerfect) that contain smart quotes lose the quotes upon a paste to PASAT and apostrophes are translated to quotation marks. Smart quotes are quotation marks that are curled in an open and closed manner and are different that "unidirectional" quotes. In MS Word you turn on smart quotes by choosing AutoCorrect from the Tools menu.



Microsoft Word's AutoCorrect Window

This AutoCorrect feature causes other translation issues, which are summarized below:

- Smart Quotes get lost therefore if you have "Title of a Book" it will translate to:
Title of a Book
- With Smart Quotes on Apostrophes translates to straight quotes, for example:
if you have Bill's bike it translate to
Bill"s bike
- With the option that Double Hyphens (--) becomes a single bar –this does not translate any hyphens at all.

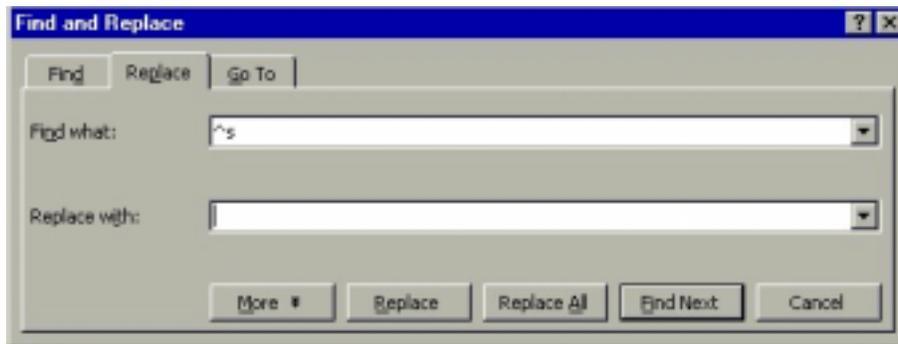
This behavior is a little different between Word 97 and 2000 (in Word 2000 the smart quotes translate).

To manually search out the special characters before copying and pasting into PASAT:

1. In the source document in Word go to Edit from the toolbar and select Replace.

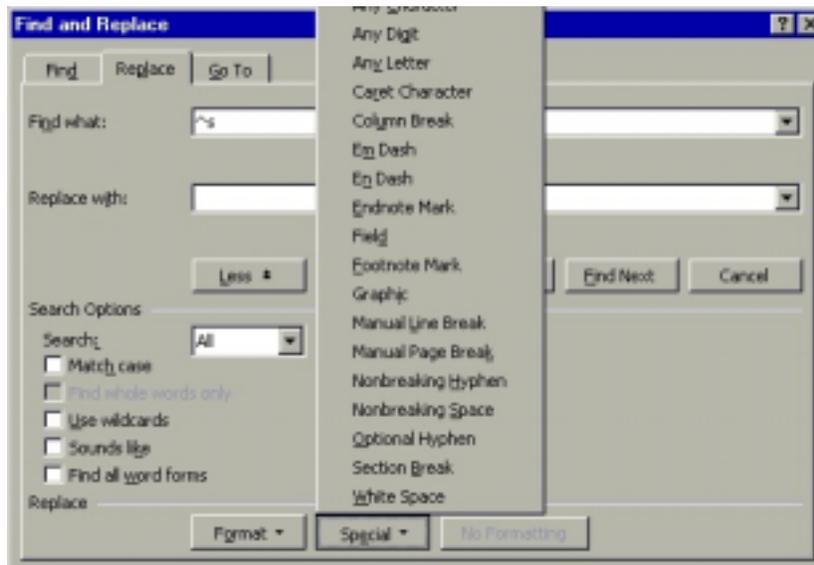


- In the Find & Replace window, select the Replace tab
- Click on the “more” button to show more options by which to search



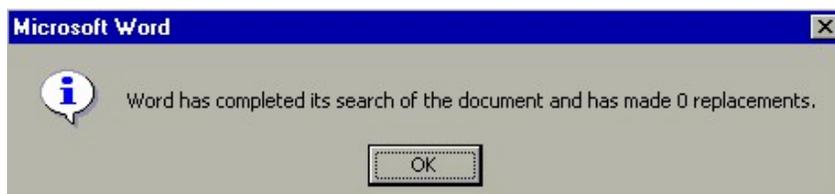
Microsoft Word's Find and Replace Window - Compact

- On the next screen click on the “special” button to show special characters to search for



Microsoft Word's Find and Replace Window - Expanded with Special Pop-up Window

- To search and replace “nonbreaking spaces”, select the “nonbreaking spaces” from the “special” button and this selection will be placed in the “find what” section. In the “replace with” selection, type a “space” by just hitting the space bar one time
- Once the “find” and “replace” fields have been filled in, select “replace all”. You should receive a message that says the following:



Microsoft Word's Replacements Window



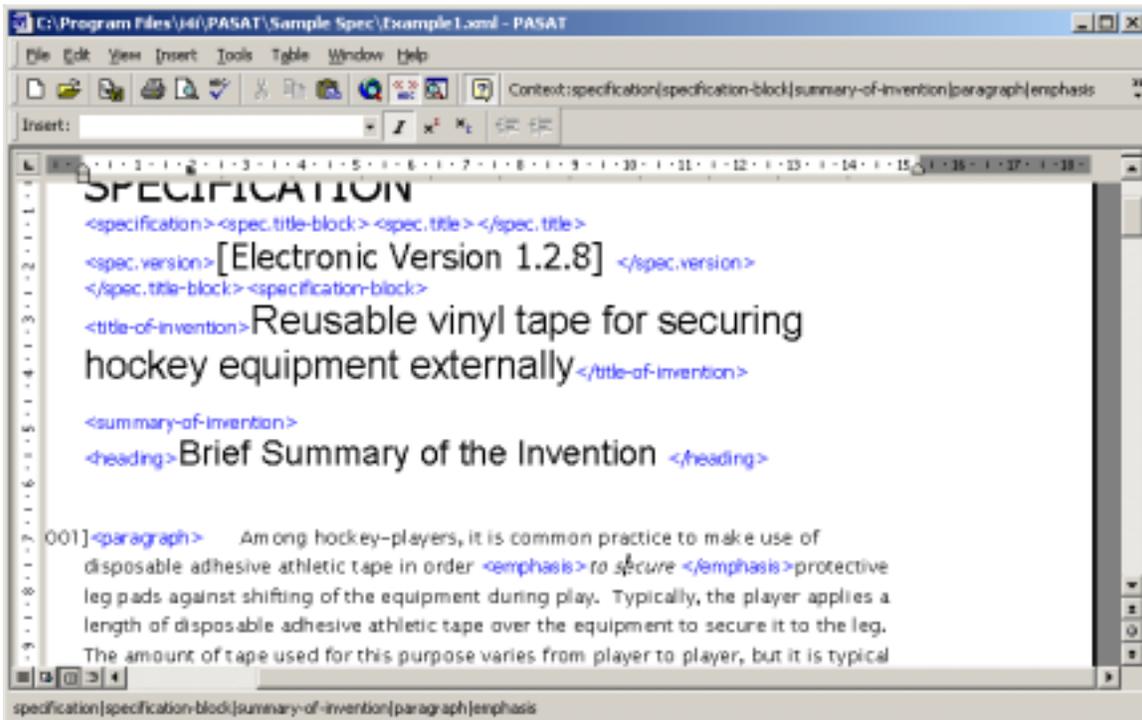
- You may repeat these steps for each special character that may cause lost content when pasting into PASAT.

Translation errors when copying and pasting from WordPerfect into PASAT

You copy from a WordPerfect 9 document into PASAT. PASAT deleted every text string following a soft return in the document. You are using Windows NT and Word 2000. Following every hard return, a space was deleted so that the last text string on one line ran into the text string on the next line. All soft hyphens in the WordPerfect document were translated as underscores. The degree symbol translated as a capital Epsilon. When the WordPerfect document was opened in Word and copied and pasted in to PASAT, the text string following a soft hyphen was deleted. When the WordPerfect document was saved as a *.doc file and opened in Word better translation was obtained, however the degree symbol was still translated as an Epsilon and the run-on text strings still appeared. The degree symbol problem can be overcome if the entire document is changed to Arial font.

Emphasis Rendering in PASAT

In the stylesheet all emphasis tags render as italics. It should be further noted that PASAT automatically upon paste takes underline, bold and italics and applies emphasis tags.



Specification Document Showing Text in the Emphasis Tag in Italic

Pasting Paragraphs

The Paste Paragraphs operation pastes text sections as paragraphs.

Note: This operation is enabled if paragraphs are allowed at the current cursor position.



While pasting text copied from a non-structured document (e. g., from a regular MS Word file), all text formatting (Bold, Italics, etc.) is lost.

To paste the clipboard content as multiple paragraphs:

1. **Copy a section of text** to the clipboard.
2. **Position the cursor** at the location where you want the clipboard content to be pasted.
3. Select the **Paste Paragraph(s) option** from the Edit menu.

The text from the clipboard is pasted at the specified location.

Pasting Claims

The Paste Claims operation pastes text sections as multiple claims. The text is split into claims based on hard returns.

Note: This operation is enabled only in the Claims section.

To paste the clipboard content as multiple claims:

1. **Copy a section of text** to the clipboard.
2. **Position the cursor** at the location where you want the clipboard content to be pasted.
3. Select **Paste Claim(s) option** from the Edit menu. The text from the clipboard is pasted at the specified location as multiple claims. The text is split into claims at hard returns.
4. Renumber the new claims by selecting **Renumber and then Claims from the Tools menu**.

Examples

Clipboard content (copied from an MS Word document):

A method according to claim 1 wherein the vinyl strap is 120" to 240" and can be measured and cut into shorter, customized-length strips.¶
A method according to claim 1 wherein the vinyl strap is transparent.¶
A method according to claim 2 wherein the vinyl strap is transparent.¶

Pasted using the Paste Claims option and renumbered:

[c2] A method according to claim 1 wherein the vinyl strap is 120" to 240" and can be measured and cut into shorter, customized-length strips.

[c3] A method according to claim 1 wherein the vinyl strap is transparent.

[c4] A method according to claim 2 wherein the vinyl strap is transparent.



Reversing Operations

The Undo operation in PASAT can reverse the following operations (up to 6):

- Insertion of text
- Deletion of content
- Cutting and Pasting (except for Paste Paragraphs and Paste Claims)
- Formatting text
- Splitting paragraphs

To reverse an operation, do one of the following:

- Select the **Undo option** from the Edit menu, or
- Press **Ctrl+z** on the keyboard, and the last operation on the Undo list is reversed.

Managing Complex Work Units

PASAT recognizes the following Complex Work Units (CWU):

- Table - CWU (an MS Word table or a scanned table in a .tiff file)
- Math - CWU (a math formula in a .tiff file, inserted inline)
- Chemistry - CWU (a chemical formula in a .tiff file, inserted inline)

PASAT supports the following CWU management operations:

- Insertion
- Deletion

Inserting Math - CWU and Chemistry - CWU

To insert a Math - CWU or Chemistry - CWU:

1. **Position the cursor** in the required location.
2. Do one of the following:
 - Select the **Math - CWU or Chemistry - CWU option** from the Insert dropdown list, or
 - Click the **corresponding button** in the Office Assistant callout, and the Windows File Open dialog is displayed with a default extension .tif.
3. Select **the required file** and click **the OK button**, and the selected graphic appears at the specified location.

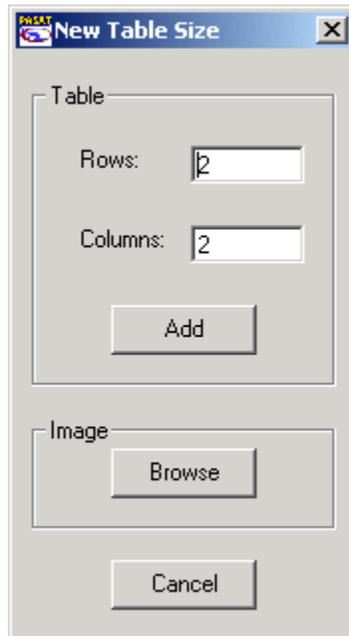
Behind the scenes, PASAT wraps the inserted CWU in the appropriate start and end tags (e. g., for Math: `<math-CWU> graphic </math-CWU>`).



Inserting Table - CWU

To insert a Table - CWU:

1. **Position the cursor** at the required location.
2. Do one of the following:
 - Select Table - CWU from the Insert dropdown list, or
 - Click the corresponding button in the Office Assistant callout, or
 - Select the Insert Table option from the Table menu, and the New Table Size dialog is displayed.



New Table Size Window

3. Do one of the following:
 - a. To insert an MS Word table, **type the required number** of rows and columns in the corresponding fields and **click the OK button**.
 - b. If you have inserted an MS Word table, behind the scenes, PASAT inserts the required XML table elements at the specified position. E.g., for a table that has two rows and two columns the XML structure looks like:

```
<Table-cwu><Table><TGroup><TBody><Row><Entry></Entry>
<Entry></Entry></Row>
<Row><Entry></Entry><Entry></Entry></Row></TBody>
</TGroup></Table>
</Table-cwu>
```

OR



- a. To insert a scanned table in a .tiff file, **click the Browse button, select the file, and click the OK button.** The new table is inserted at the specified location.
- b. If you have inserted a scanned table as a .tiff file, behind the scenes, PASAT wraps the inserted CWU in the appropriate start and end tags: <Table-cwu> graphic </Table-cwu>.

Note: Tiff images must be done a page at a time and columns might become skewed due to scanning or printing.

Deleting Complex Work Units

To delete a CWU:

1. **Double-click the required CWU** element in the specification.
2. **Press Delete** on the keyboard. The selected CWU is deleted.

Behind the scenes, PASAT removes the element's content and tags from the specification.

Managing Tables



This section does not pertain to the scanned tables inserted as .tiff files.

PASAT supports the following table management operations:

- Inserting Tables
- Rendering/Unrendering Tables
- Pasting Tables
- Inserting Rows
- Inserting Columns
- Resizing Columns
- Deleting Rows
- Deleting Columns
- Merging Cells
- Splitting Cells
- Deleting Tables

You perform most of the table management operations the way you would perform them in MS Word.

Behind the scenes, PASAT inserts or deletes the appropriate XML elements so that the validity of the table structure is always preserved.



Row/column insertion and deletion operations are enabled only in rendered tables.

Inserting Tables

To insert a table, follow the steps described in the **Inserting CWU - Table** section.

Rendering/Unrendering Tables

Rendered tables are displayed as regular MS Word tables. Unrendered tables are displayed as groups of XML table elements. You don't have to work with or even see the tables unrendered in the normal course of the specification editing. If, however, you want to unrender a table – for example, for diagnostic purposes – you can do so at any time.

To toggle between the rendered and unrendered display of a table:

1. **Position the cursor** anywhere within the table.
2. Select **Convert Table** from the Table menu. If the specified table was rendered, it becomes unrendered and *vice versa*.

Pasting Non-Structured Tables

PASAT enables you to paste non-structured tables (copied from regular MS Word documents) into your specification. While pasting, PASAT converts the regular MS Word table to a valid XML table (inserts all necessary tags).

To paste a non-structured table into specification:

1. **Copy** the required table from a regular MS Word document.
2. **Position the cursor** at the required insertion position.
3. Select the **Paste Table option** from the Edit menu. The table from the clipboard is pasted at the specified position.

Behind the scenes, PASAT inserts all the necessary tags at the specified location and copies the table contents to the appropriate elements.

Note: Pasting Tables functionality does not allow for nesting of formatting tags such as `x<superscript>5<emphasis>i</emphasis></superscript>` which is x^{5i} .

In some instances, crashes occur when trying to paste tables.

Inserting Rows

To insert a row into a table:

1. **Position the cursor** in a row adjacent to where you want the new row to appear.
2. From the Table menu, **select the Insert** option, and then select **Row Above** or **Row below**, depending on where you want the new row to be added.



Inserting Columns

To insert a column into a table:

1. **Position the cursor** in a column adjacent to where you want the new column to appear.
2. From the Table menu, **select the Insert** option, and then select **Column to the Right** or **Column to the Left**, depending on where you want the new column to be added.

Resizing Columns

To resize a column:

1. Highlight the column to be resized.
2. Move the column separator in the required direction with the cursor.

Deleting Rows

To delete a row:

1. **Position the cursor** in the row to be deleted.
2. From the Table menu, select Delete, and then select **Delete Row**.



You can delete only one row at a time.

Deleting Columns

To delete a column:

1. **Position the cursor** in the column to be deleted.
2. From the Table menu, select Delete, and then select **Delete Column**.

Merging Cells

To merge two table cells into one:

1. **Highlight** the cells to be merged.
2. From the Table menu, select the **Merge Cells** option. The selected cells are merged into one.

Behind the scenes, PASAT unites the entry elements that correspond to the selected cells into a single entry element.

Splitting Cells

To split a cell:

1. **Position the cursor** in the cell to be split.



Note: PASAT splits only those cells that were previously merged.

2. From the Table menu, select the **Split Cell** option. The selected cell is split into two original cells.

Behind the scenes, PASAT splits the entry element that corresponds to the selected cell into two original entry elements.



You can delete only one column at a time.

Deleting Tables

To delete a table:

1. **Double-click** within the table.
2. **Press the Delete** button on the keyboard.

Managing Figures

PASAT supports the following operations with figures:

- Addition
- Reordering
- Removal

Note: The only allowed format for the figures is .tiff (not compressed).

Once inserted, figures cannot be resized.

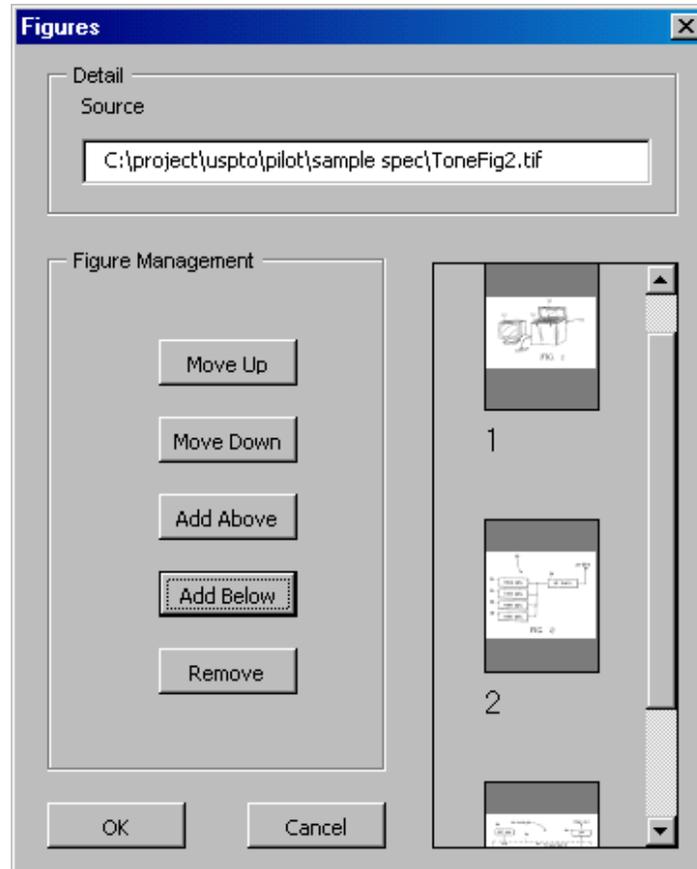
The MS Word Graphic toolbox is disabled.

You perform all figure management operations in the Figures dialog.

Displaying the Figures Dialog

To display the dialog, do one of the following:

1. Click the **Insert Figures** option in the Office Assistant callout, or
2. Select the **Picture option from the Insert** popup menu. The Figures dialog is displayed.



Figures Window

The dialog layout is:

The right-hand pane displays the figures that are already in the specification (if any), in the order in which they appear in the Figures section

The Source field (across the top) shows the path and name of the source file for the figure selected in the right-hand section

The left-hand pane offers a series of buttons each of which performs the corresponding operation on the figure selected in the right-hand section

The OK/Cancel group of buttons in the lower left-hand corner is used to accept/reject the changes you have made to the Figures section and to close the dialog

Adding Figures

To add a figure:

1. If there are figures displayed on the right-hand pane of the Figures dialog, **highlight the figure** adjacent to which you want to insert the new figure.
2. Click the **Add Below** or **Add Above** button. The Image File dialog is displayed with a default extension .tif|tiff.



3. **Select** the required file and **click the OK button**. The selected graphic appears at the specified location on the right-hand pane of the Figures dialog. The Figures dialog closes. The new figure is inserted at the specified location in the Figures section of the specification.

Behind the scenes, PASAT

- Creates a new figure element at the specified location and generates a unique ID for it
- Within the figure element, creates an artwork element and sets its "target" attribute to the selected .tiff file (`<figure><artwork> graphic </artwork></figure>`).

Reordering Figures

To change the order in which the figures appear in the Figures section:

1. **Highlight the figure** to be moved on the right-hand pane of the Figures dialog.
2. Click the **Move Up** or **Move Down** button. Each click moves the highlighted figure one position up or down on the list, respectively.
3. When satisfied with the new order, **click the OK button**. The Figures dialog closes. The figures in the Figures section appear in the new order.

Removing Figures

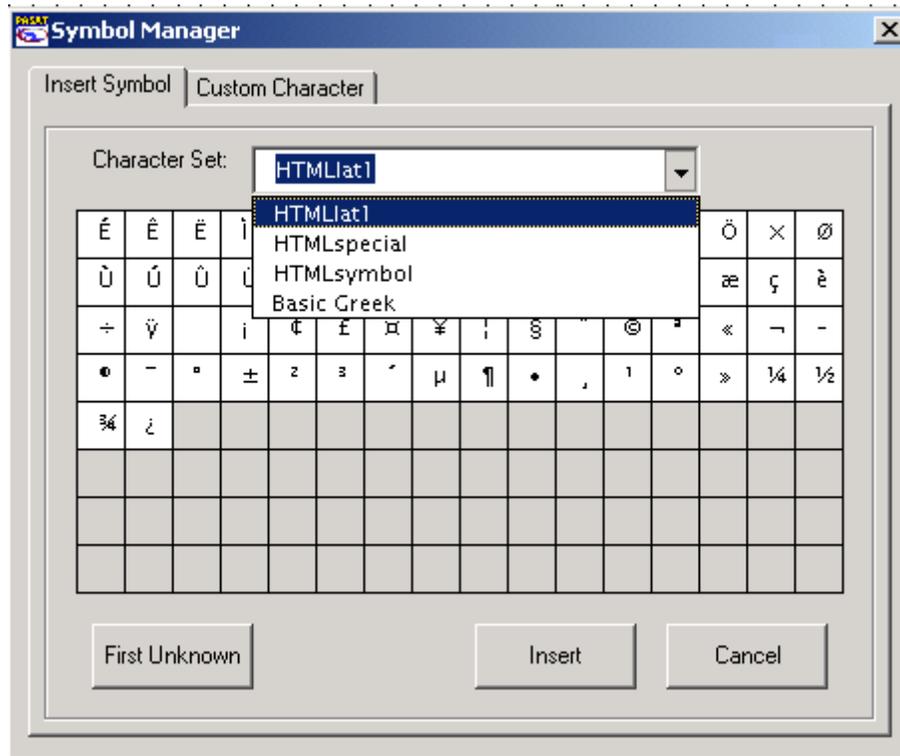
To remove a figure:

1. **Highlight the figure** to be removed on the right-hand pane of the Figures dialog.
2. Click the **Remove button**. The figure is removed from the right-hand pane.
3. Click the **OK button**. The Figure dialog closes. The selected figure is removed from the Figures section of the specification.

Behind the scenes, PASAT removes the corresponding figure and artwork elements from the specification and from the Specification Map.



Managing Special Characters



Symbol Manager Window with Dropdown List

PASAT supports special characters defined by the ISO standard No 8859-1 (HTML 4.0 named character entities). It contains the following character sets, accessible from the dropdown menu in the Character Set field of the Symbol Manager window:

- HTMLlat1
- HTMLspecial
- HTMLsymbol
- Basic Greek

PASAT also enables the use of custom characters, which should be drawn or scanned and saved as .tif files.

The special character management activities are:

- Insertion
- Search for and replacement of the unknown symbols
- Deletion

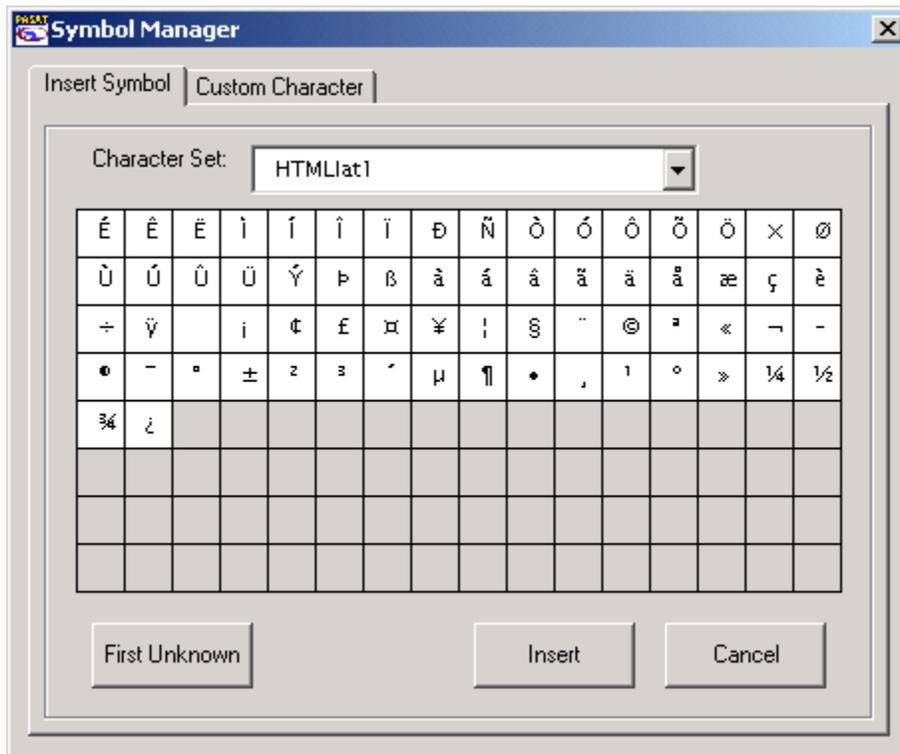
Inserting HTML Characters

To insert an HTML character:

1. **Position the cursor** at the insertion point.



2. Select the **Symbol** option from the **Insert** menu. The Symbol dialog is displayed.



Symbol Manager Window (Similar to Microsoft Word's Symbol Window)

3. Select the required **entity set** from the Entity Set dropdown list. The required set is displayed in the dialog.
4. Highlight the **required character** in the set.
5. Click the **Insert** button.

The selected character is inserted at the cursor location as an entity.

Inserting Custom Characters

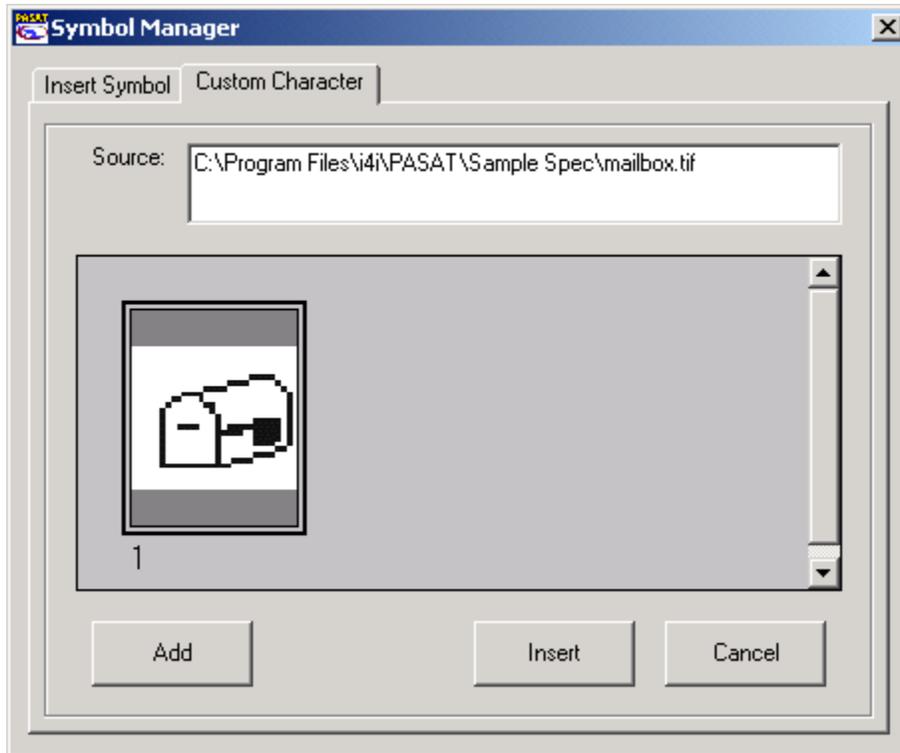
To insert a custom character:

1. **Position the cursor** at the insertion point.
2. Select the **Symbol** option from the Insert menu.

The Symbol dialog is displayed.

3. Click the **Custom Character** tab.

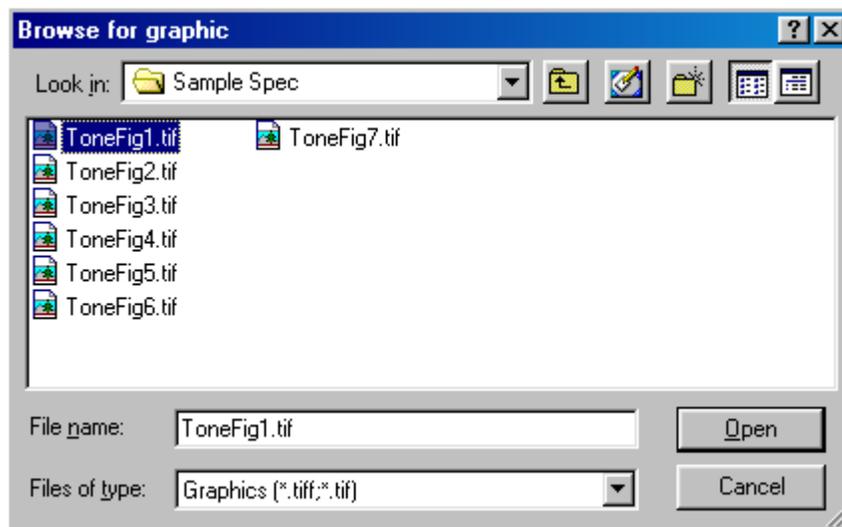
The Custom Character page is displayed.



Symbol Manager Window - Custom Character tab

4. Click the **Add** button.

The Browse for Graphic dialog is displayed.



Browse for Graphic Window (Standard File Open Window)

5. **Select** the .tif file you want to use as a custom character and click the **Open** button.

The image contained in the selected file is displayed on the central panel of the Custom Character page.



6. **Highlight** the image.

The path and name of the corresponding file appear in the Source field.

7. Click the **Insert** button.

The selected image is inserted at the cursor location as a custom character.

Behind the scenes, PASAT encloses the inserted image in a pair of appropriate tags.

Replacing Unknown Symbols

As a result of pasting sections copied from non-PASAT documents, your specification may contain unknown symbols, marked in the text by the Unknown Symbol sign.

To replace the unknown symbols with the appropriate special characters:

1. Display the Insert Symbol dialog.
2. Click the Next Unknown button.

The first Unknown Symbol sign in the specification is highlighted.

3. Select the special character or specify the custom character to replace the unknown symbol. For procedure, refer to the [Inserting HTML Characters](#) and the [Inserting Custom Characters](#) section, respectively.
4. Repeat steps 2 and 3 for each unknown symbol.

Copied the double arrow symbol from a Word 97 doc and pasted into PASAT.

PASAT will indicate if an unknown symbol was found if there is a mistranslation of the copied double arrow symbol and prompt you to use symbol manager to insert the double arrow symbol using the PASAT Insert Symbol function. Click on the first occurrence of unknown symbol. Go to the tab insert symbol and select the required symbol, then Click on insert. OR, select the insert custom character tab, if symbol required is not displayed. Click on the Add button, find tiff file, highlight the tiff thumbnail, and clicked on Insert.

Deleting Special Characters

To delete a special character:

1. **Highlight the required character** in the specification.
2. **Press Delete** on the keyboard. The selected special character is deleted from the specification.

Entering Biological Deposit Data

The Biological Deposit Data is an optional element of the Detailed Description of the Invention section.

To enter the Biological Deposit Data:

1. **Position the cursor** anywhere in the Detailed Description title.



2. Select the **Insert Biological Deposit Data** option from the Office Assistant callout.

The Biological Deposit Data title appears in the specification.

3. Select the **Insert Biological Deposit** option from the Office Assistant callout.

The Enter Biological Deposit Data dialog is displayed.

Enter Biological Deposit Data Window

4. **Fill out** the dialog fields.
5. Click the **OK button**.

The dialog closes. The data you have entered appears in the specification under the Biological Deposit Data title in a predefined layout.

Behind the scenes, PASAT builds a markup structure as defined by the content model of the Biological Deposit Data element.

Spell-Checking

As in MS Word, you can perform spell-checking in two modes: Real-time and Batch. In both modes, PASAT uses all custom dictionaries selected in the MS Word Options dialog.



Real-Time Spell-Checking

As in MS Word documents, the misspelled words in the specification are underlined in red.

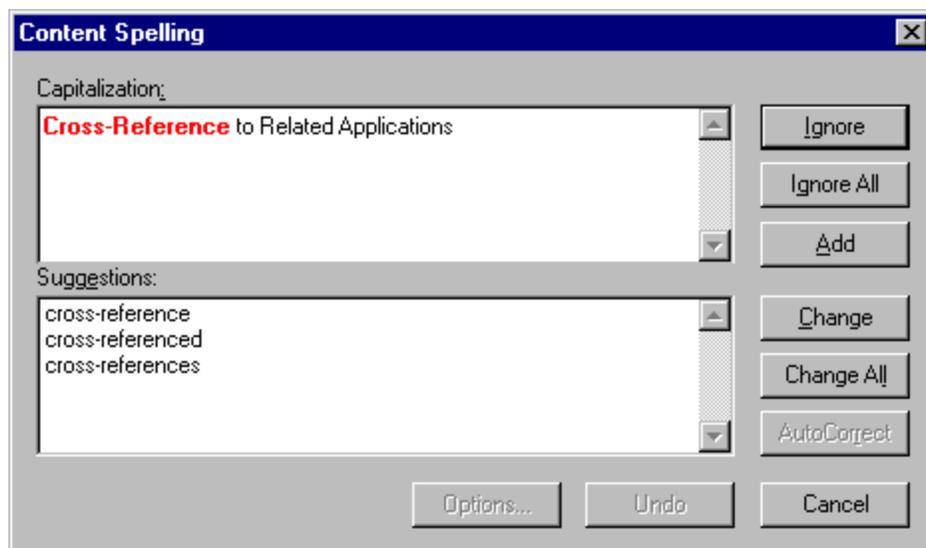
To correct the spelling of an underlined word:

1. **Left-click** anywhere in the underlined word.
2. Right-click anywhere in the underlined word.
3. Select the required **spelling option** from the popup list that appears. The misspelled word is replaced with the word you chose from the list.

Batch Mode Spell-Checking

To spell-check the entire specification:

1. Select the **Check Spelling option** from the Tools menu. The Content Spelling dialog is displayed.



Content Spelling Window

The layout and functionality of this dialog are very similar to those of the MS Word Spelling and Grammar dialog:

- The upper pane displays the misspelled word highlighted in the specification text
- The lower pane displays the spelling suggestions for this word
- The buttons in the right-hand section enable you to change or ignore the highlighted occurrence of the misspelled word or of all the occurrences of this word in the specification



Note: The PASAT spell-checker deals only with the spelling of the individual words. It does not check the grammar structures.

The AutoCorrect, Options and Undo buttons are disabled.

2. Proceed with the spell-checking as you would in a regular MS Word document.

Behind the scenes, PASAT

- Separates the specification content from the markup so that only the content spelling is checked
- Updates the XML instance in accordance with the changes you make in the MS Word window

Finding and Replacing Content

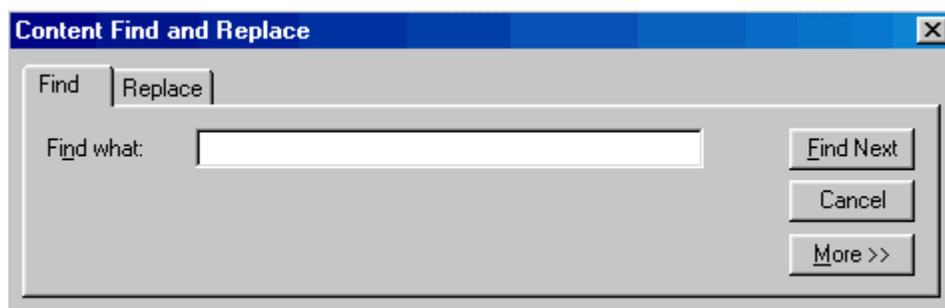
As well as MS Word, PASAT enables you to search for words and phrases and, optionally, automatically replace them with other words and phrases. The "specialty" of PASAT is that its Search and Replace capabilities pertain only to the content of the displayed instance, not to the markup it may include.

Finding Words and Phrases

To find a word or a phrase:

1. Select the **Find** option from the Edit menu.

The Content Find and Replace dialog is displayed.



Content Find and Replace Window

2. Proceed with the **Find operation** as you would in a regular MS Word document.

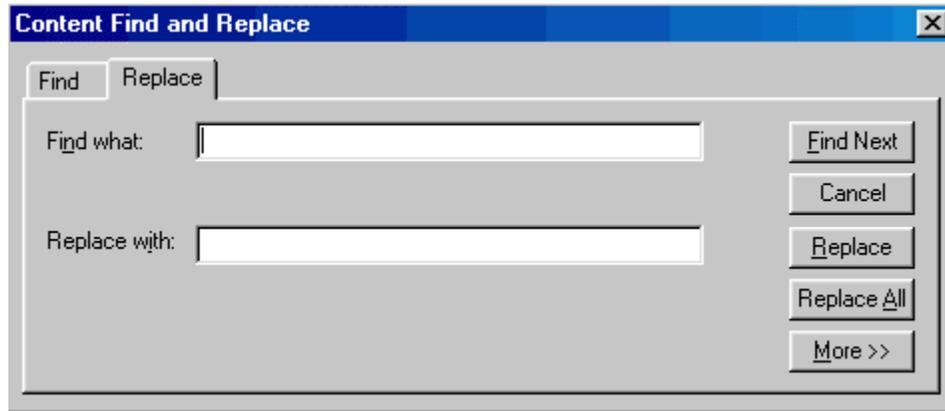
Behind the scenes, PASAT separates the specification content from the markup so that only the content is searched for the required words/phrases.

Replacing Words and Phrases

To automatically replace a word or a phrase with another word/phrase:

1. Select the **Replace** option from the Edit menu.

The Replace page of the Content Find and Replace dialog is displayed.



Content Find and Replace Window

2. Proceed with the **Replace operation** as you would in a regular MS Word document.

Behind the scenes, PASAT

- Separates the specification content from the markup so that only the content undergoes word/phrase replacement
- Updates the XML instance in accordance with the changes you make



VALIDATING AND PREVIEWING SPECIFICATIONS

Before you export a specification to an .xml file, it is strongly recommended that you validate its structure and correct all errors revealed by the *validation* process. You may also want to preview the specification in the Internet browser window, to get a clear idea of how it is going to look as a rendered XML instance.

Validating Specifications

To validate a specification:

1. Select the **Validate Instance** option from the Tools menu.

PASAT starts the validation process from the beginning of the document. When it encounters a structural error, this error is displayed in a message box.



2. Click the **OK** button. The section that caused the error is highlighted in the specification.
3. **Correct** the highlighted error.
4. **Repeat steps 1 through 3** until the "Instance is Valid" message is displayed. Your specification is now XML-valid and is ready to be exported as an XML instance.

Previewing Specifications

To preview a specification in an Internet browser:

1. Select the **Preview in Browser option** from the File menu. Your default Internet browser is launched. The specification is displayed in the browser window as an XML instance.
2. **Check the appearance** of your specification.
3. To return to the specification in PASAT, **close** the browser window.

PASAT, Print Preview of IE 5.5 Does Not Display S4W Text

In previewing in the browser of s4w file content may not be viewable in the Print Preview function of IE 5.5. The content is in the XML and shows in the browser but does not view in Print Preview display. External Document will show screen shots and provide files of this arrangement. When the identical content that gets lost in Print Preview is copied and pasted to another location in PASAT – content is not lost.



PASAT Error in XML Specification File

PASAT does not always write the right dimensions for the specification XML file.

Example of problem that may occur :

```
<artwork source="artwork0" height="11"  
width="0"/></figure></figures></specification-block></specification>
```

The width="0" is wrong. It shouldn't be 0.



SAVING AND EXPORTING SPECIFICATIONS

The Export XML Specification operation saves specifications in the XML format for submission to USPTO.

The Save Specification operation saves specifications in the PASAT format (.s4w and .s4t). Note that it does not generate the .xml file required by the USPTO. There are two main reasons for storing a specification as .s4w and .s4t couple as long as you keep working on it:

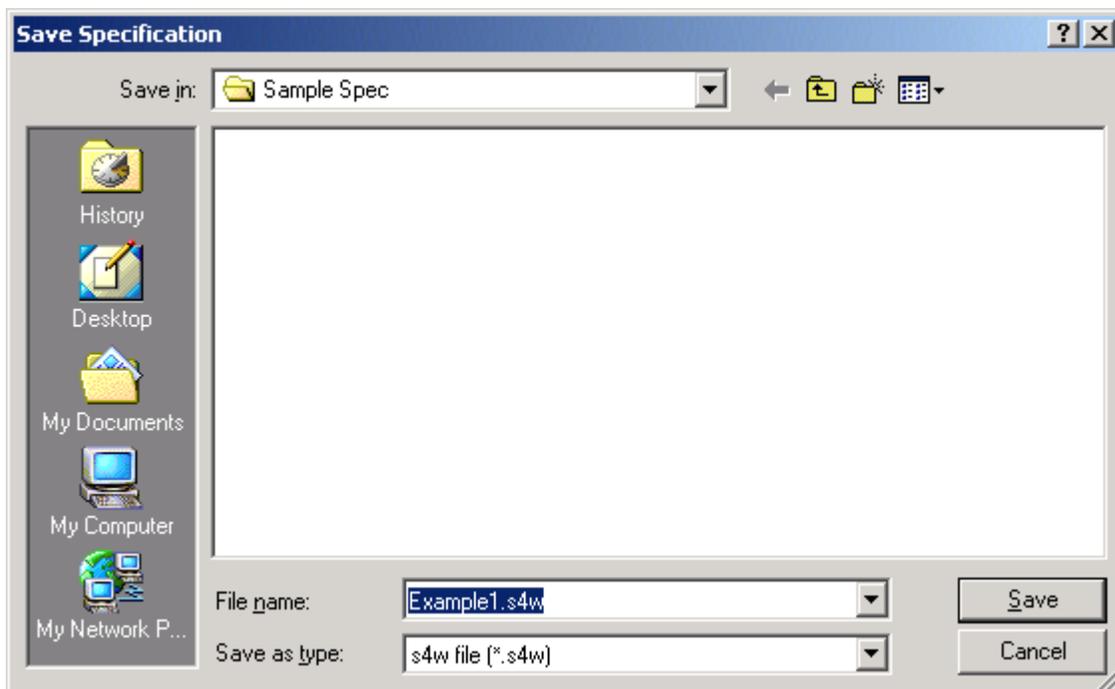
- An XML-invalid .s4w file can be loaded for further editing in PASAT while an invalid XML instance cannot be imported
- Loading an .s4w file is a much faster process than importing an .xml file.

Saving Specifications

To save a specification:

1. Do one of the following:
 - Select **Save Specification option** from the File menu, or
 - Click the **Save Specification button** on the toolbar.

If this is the first time you are saving the specification, the Save Specification dialog is displayed.





Save Specification Window

2. In the dialog, **specify the path and the name** for the .s4w file.
3. Click the **Save button**.

Behind the scenes, PASAT saves the information about the structure of the Specification, its DTD reference and formatting template in a separate file with extension .s4t.

The specification is saved at the specified location with the specified name in two files: <name>.s4w and <name>.s4t.

Note: Specifications are not validated on Save.

Each consecutive Save Specification operation updates both the .s4w and .s4t files.

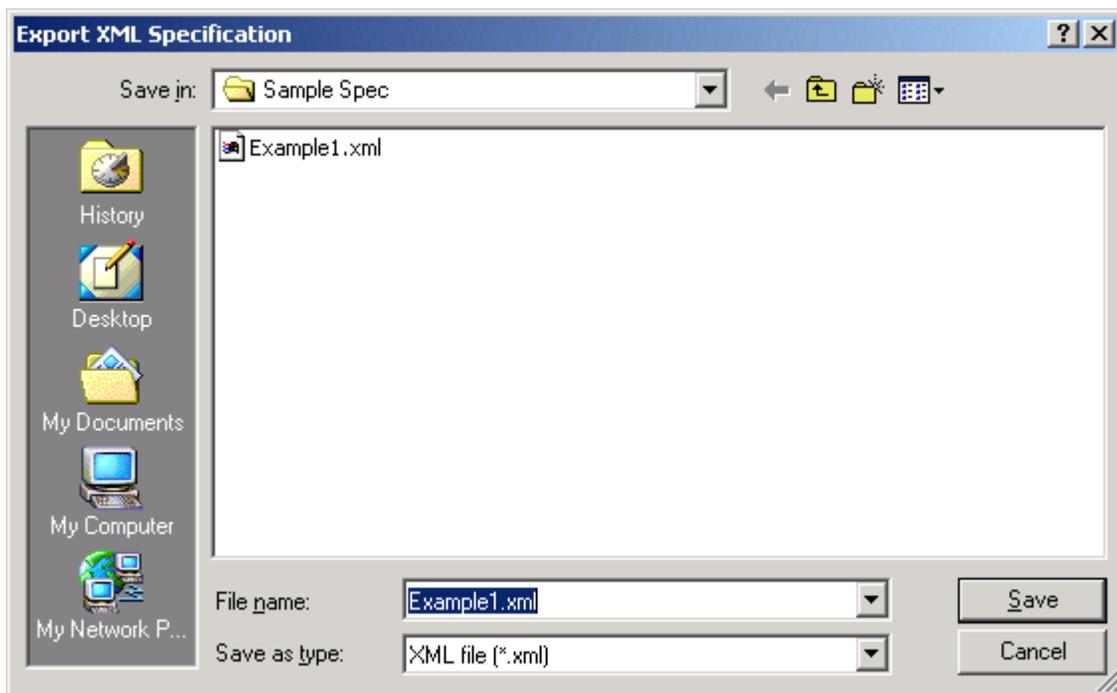
Always keep .s4w files and the corresponding .s4t files in the same directory

Do not open .s4w and .s4t files in any editor other than PASAT. This will corrupt the specification.

Exporting Specifications

To export a specification:

1. Do one of the following:
 - Select the **Export XML Specification option** from the File menu, or
 - Click the **Export XML Specification button** on the toolbar. The Export Specification dialog is displayed.



Export XML Specification Window



2. In the dialog, **specify the path and the name** for the .xml file you want to export the specification to.
3. Click the **Save button**.

If the specification is valid (conforms to the USPTO DTD), it is saved at the specified location with the specified name as an XML instance (.xml file), ready for submission to the USPTO.

If the specification is invalid, the appropriate warning is displayed.

Behind the scenes, PASAT

- Validates the specification against the USPTO DTD
- At the beginning of the exported instance, generates processing instructions that reference the USPTO DTD (Public ID and System ID) and the XSL
- Rebuilds graphic references



GLOSSARY

Content	The part of an <i>XML instance</i> that excludes the <i>markup</i> (text, graphics, etc.).
CWU (Complex Work Unit)	An inline Math or Chemistry formula (.tiff file), or a <i>table</i> .
DTD (Document Type Definition)	An ASCII file that expresses the logical structure (valid <i>tags</i> , attributes for those tags, and the relationships the tags have to each other) for a particular type of <i>XML</i> document.
Element	A structural component of an <i>XML instance</i> ; consists of a start <i>tag</i> , <i>content</i> (optional), child <i>elements</i> (optional) and an end <i>tag</i> .
Formatting Template	A set of rules that define how an <i>XML instance</i> is represented with the use of the MS Word styles.
Graphic Reference	An <i>element</i> that contains the path and name of an external graphic file as an attribute.
Instance	In <i>XML</i> , a document containing <i>markup</i> and (optionally) <i>content</i> .
ID	A unique identifier of an <i>element</i> . It is used to locate the <i>element</i> in the <i>instance</i> , define it as a reference target, etc.
Number	A unique number generated by PASAT for every paragraph and claim in an <i>instance</i> ; numbers are always visible in the MS Word window.
Markup	Declarations and <i>tags</i> that describe the <i>structure</i> of an <i>XML instance</i> . In PASAT, <i>structure</i> is managed completely separately from <i>content</i> , so that markup does not have to be explicitly visible. When a PASAT document is exported to an <i>XML instance</i> , the <i>structure</i> is merged with the <i>content</i> .
Special Characters	HTML 4.0 named character entities, as defined by the ISO standard No 8859-1.
Structure	The organizational form that determines which <i>content</i> objects are permitted at any point in a document.
<Structure> Validation	A process that determines if the <i>markup</i> grammar and <i>content</i> of an <i>instance</i> conform to the specified DTD.



	<p>syntax of an <i>instance</i> conform to the specified <i>DTD</i>.</p>
Table	<p>In PASAT, a CALS Exchange Model XML table (a group of table <i>elements</i>). When rendered, appears in the specification as a regular MS Word table.</p>
Tag	<p>A descriptive <i>markup</i> unit, which consists of an open delimiter (usually “<”), a generic identifier (for example, “title”), and a close delimiter (usually “>”). The tag, in this case, is <title>.</p>
XSL	<p>Extensible Stylesheet Language. The XSL file used by PASAT contains a set of rules that define how an <i>XML instance</i> is represented in an Internet browser.</p>
XML	<p>A <i>markup</i> language derived from SGML. XML was designed to be easy to implement, and to create interoperability between SGML and HTML.</p>
.s4t <file>	<p>One of the two files in which PASAT saves each <i>instance</i>. Contains the structural information about the <i>instance</i> (<i>markup</i>, <i>DTD</i> reference, etc.).</p>
.s4w <file>	<p>One of the two files in which PASAT saves each <i>instance</i>. Contains the <i>content</i> of the <i>instance</i>, separated from the <i>markup</i>.</p>



APPENDIX A: SECTIONS AND CONTENT MODELS

Title of Invention (Required)

Contains plain text. May contain italic, superscript and subscript sections.



Copyright Statement (Optional)

Contains a heading and one or more copyright elements, each of which can contain plain text only.



Cross-reference to Related Applications (Optional)

Contains a heading and one or more continuity statement elements, each of which can contain plain text only.

<Cross-reference-to-related-applications> This element refers to the section of the specification describing any related applications, including application for which priority under 35 USC 119(e), 120, or 371 is being sought; MPEP 608.01(a), 201.11, 37 CFR 1.77, 1.78. This section of the specification document is not numbered as a paragraph by the authoring tool since it is considered a separate section.

Continuity statement is a string of continuity data, which is composed of text corresponding to the type of application you are submitting, the status of the application cited, filing date and document number. The continuity data entered in the application data sheet is automatically transferred into USPTO databases as needed for prosecution of the patent application.



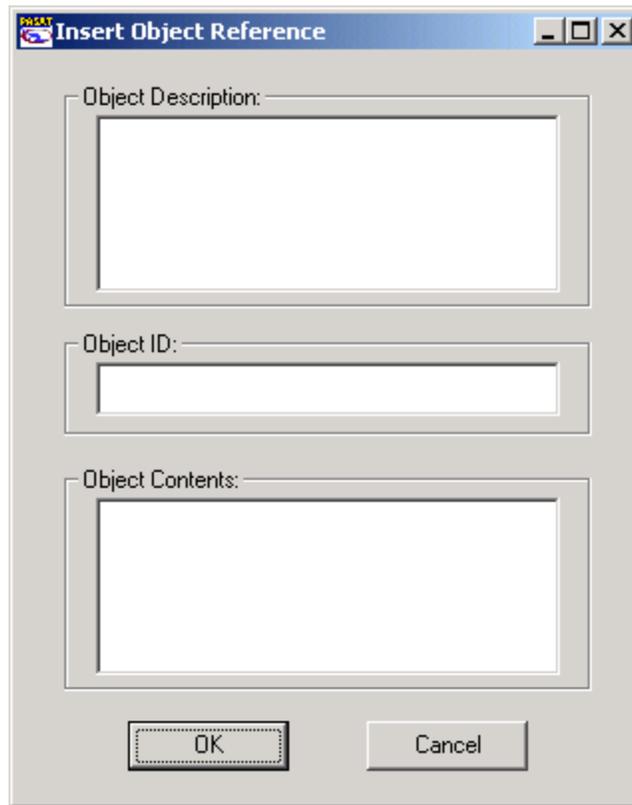


Federal Research Statement (Optional)

Contains a heading and one or more federal research statement paragraphs, each of which must contain a grant number, a contract number and a US agency number. These child elements can contain plain text only.



Compact Disc Appendix (Optional)



Insert Object Reference window

Contains a heading and one or more object references, each of which must contain an object ID, object description and object content element. These child elements can contain plain text only.





Background of Invention (Optional)

Contains a heading and one or more Sections or paragraphs. Sections must contain a heading and one or more paragraphs.



Summary of Invention (Optional)

Contains a heading and one or more paragraphs.



Brief Description of Drawings (Optional)

Contains a heading and one or more paragraphs.



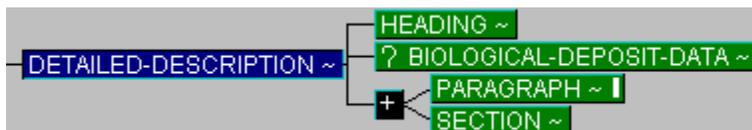
Brief Description of Sequences (Optional)

Contains a heading and one or more paragraphs.



Detailed Description (Required)

Contains a heading and one or more Sections or paragraphs. Sections must contain a heading and one or more paragraphs.



Program Listing Deposit (Optional)

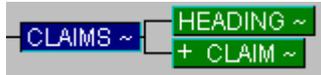
Contains a heading and one program listing only.





Claims (Required)

Contains a heading and one or more claim items. Claim items contain one or more claim-text items, which may be indented (nested).



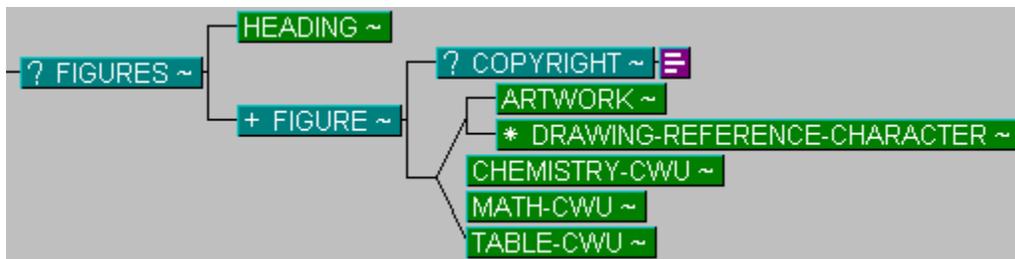
Abstract of Disclosure (Required)

Contains a heading followed by one paragraph only.



Figures (Optional)

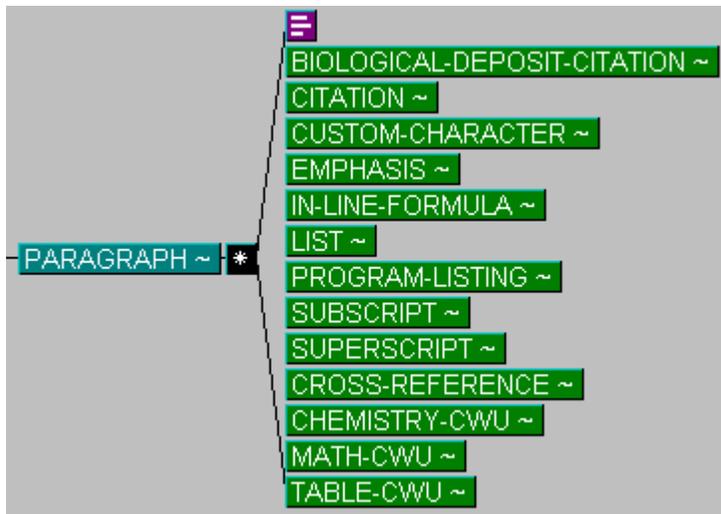
Contains a heading and one or more figure items.



Paragraph

The main embodiment for text. Can contain:

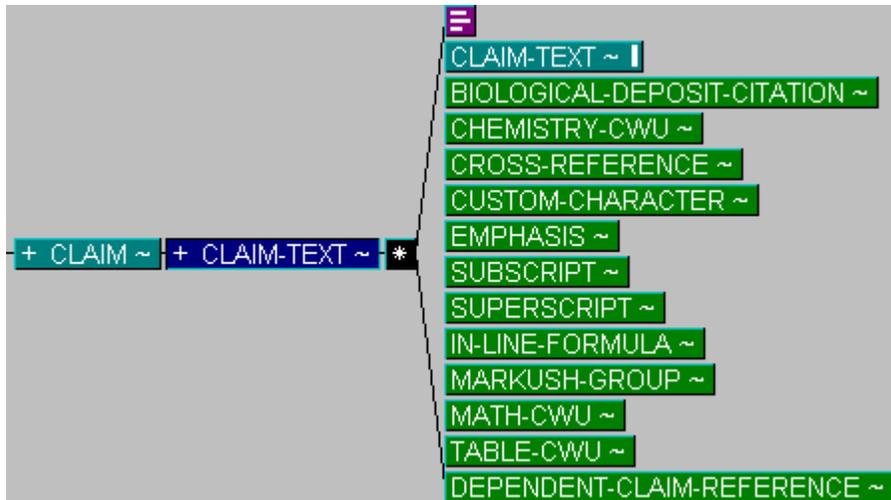
- Plain text
- List
- Emphasis
- Subscript
- CWU
- Cross-reference
- Superscript





Claim-Text

May contain the same information as a paragraph except it does not allow cross-references and allows a markush-group element.



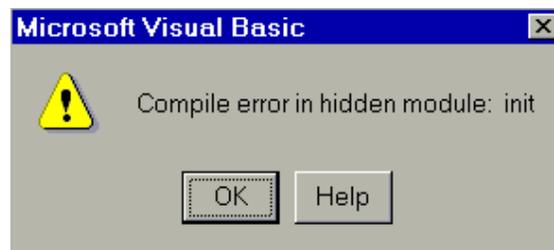
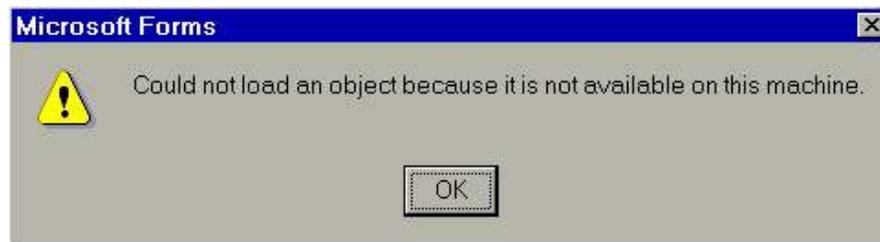


APPENDIX B: ERROR MESSAGES

Installation Errors

Objects Missing in PASAT Tool Launch

If you receive the following errors while attempting to launch PASAT, you will need to download and install PASAT from the EFS website at www.uspto.gov. This version of PASAT will replace what you've installed from the EFS CD-ROM.



To begin this process there are other components that you must have before it will work successfully on your workstation. Check each section below to set up your workstation properly

Workstation Operating System

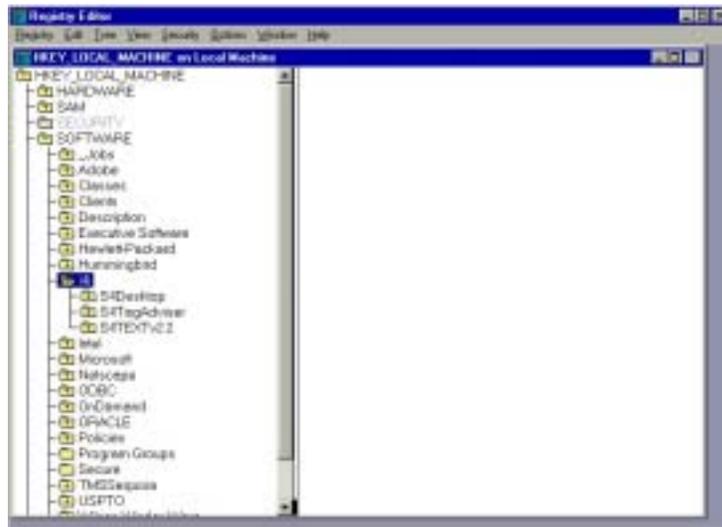
In some instances, updates to your registry settings may be necessary. To determine if this is necessary, open a Word document and go to Tools/Templates & Add-ins. If both the efs application.dot and the s4TEXT_Template01.dot are there, then you will need to make a change to your privileges in your registry. If the s4TEXT_Template01 is missing, you must find someone with administrative privileges and have them sign on to your workstation to change registry settings.

To make changes to the registry settings:

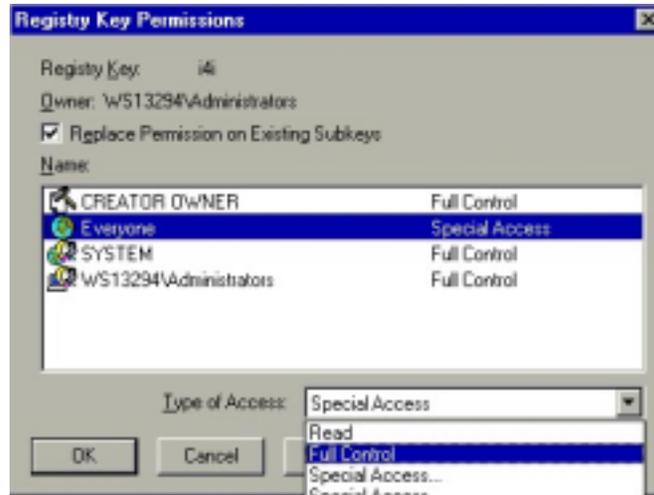
1. Click the **Start** button at the lower left corner.
2. Select **Run...** from the pop up list.
3. Type *regedit* in the **Open** field of the Run window and click **OK**.
4. Double click on HKEY_LOCAL_MACHINE from the Registry Editor window.



5. Double click on SOFTWARE under the HKEY_LOCAL_MACHINE tree and on the i4i under the SOFTWARE branch to expand the tree structure.



6. Click **Security** from the menu bar and select **Permissions**.
7. Click on the empty square to check **Replace Permission on Existing Subkeys** at the top of the Registry Key Permission window.
8. Click on **Name: Everyone** to highlight it.
9. Click on the drop down arrow in the **Type of Access** field and select **Full Control** from the drop down list.
10. Select the check box for **Replace Permission with Existing Subkeys**. A check mark will appear (see figure below).
11. Click on **OK** button within the Registry Key Permissions window.



12. Click **Yes** within the Windows NT window, which ask, “Do you want to replace the permission on all existing subkeys within i4i?”
13. Click on the “**X**” at the upper right-hand corner to close the Registry Editor window.
14. Reboot your machine and attempt to launch PASAT again.

Document Managing Software

If you have any other templates or macros installed on your workstation, they could interfere with PASAT correctly updating the registry. To verify that the essential templates for PASAT are there:

1. Open a Word document
2. Go to Tools/Templates & Add-Ins
3. The essential templates for PASAT to load correctly are:
 - efs application.dot
 - s4TEXT_Template01.dot
4. If these 2 files are in the list, select only those 2 files. Make sure that any others in the list are deselected (and no check mark appears in the box to the left.)
5. Click OK to close the window.
6. Without closing the document, click on the File menu from the tool bar and verify whether or not the “Load Specification” and “New Specification” options are listed. If so, open a “New specification” and launch the template to ensure that it is working properly.

If you are able to correct the problem this way, go to the Tools/Templates & Add-Ins and deselect the other templates each time you launch PASAT.



s4TEXT_Template01.dot file

If you are missing the s4TEXT_Template01.dot file and you have all of the above components, do the following without uninstalling the current version of PASAT:

1. Go to www.uspto.gov/ebc/efs/downloads/pasat.htm and click on the Agree, download PASAT link. This will download the Pasat.exe executable file
 - Take note of the folder to which the executable file is downloaded because you will have to go back to this file to complete the installation of PASAT
2. Once the download is completed, go to the folder where the Pasat.exe file was saved and double click on this file to execute the installation of PASAT
 - For instructions on installing PASAT, refer to [PASAT v. 4.0 Installation](#).
3. Once the installation is complete, reboot your computer
4. When the computer has been rebooted, launch PASAT again. The errors should no longer occur at this point.

If you have Document Management software or other templates loaded, after opening PASAT go to the Templates/Tools & Add-Ins and uncheck any templates other than the efs_application.dot and the s4TEXT_Template01.dot. Then go to the File drop-down menu and make sure the New Specification and Load Specification options are listed. At this point you should be able to continue using PASAT with no complications.

Plug In

The minimum requirement is the AlternaTIFF Plug In v1.3.5.

Setup checks to see if the AlternaTIFF viewer is installed. If it is not, the following message appears:



Operating System

PASAT operates on Windows 95/98/2000 or Windows NT 4.0 with Service Pack 3.0 or higher.

If the user has Windows NT, but does not have Service Pack 3 installed, the following message appears:



If the user has Windows 95, but does not have Service Pack 1 installed, the following message appears:



Microsoft Word

PASAT v. 4.0 requires Microsoft Word 97 with Service Release 2 or higher.

If the user has Word 97, but does not have Service Release 2 or higher installed, the following messages appears:



Web Browser

PASAT v. 4.0 requires Internet Explorer 5.5 or later.

If user has an earlier version of Internet Explorer, the following message appears:





If the user does not have Internet Explorer installed, the following message appears:



Application Errors

The following table outlines errors messages that may be generated by PASAT v. 4.0. Brief descriptions and solutions to these problems are also provided where appropriate.

Error	Description	Solution
Cannot add a column to a table that has merged columns.	This occurs anytime the user tries to insert a column either before or after a column with merged cells.	Split the merged cells and then insert a column.
Can not cut selection	This occurs whenever a selection cannot be cut. For example, it can occur when the user attempts to delete a merged table cell.	
Cannot cut selection. Please use Table Menu:Delete Row/Column.	This occurs when the user attempts to delete a table row or column using Cut from the Edit menu or the Ctrl+x shortcut.	From the Table menu, go to Delete, and select either Delete Row or Delete Column.
Cannot Delete Column.	This occurs when the user tries to delete: a column that contains merged cells, or the last column in a table.	In the case of merged cells, split the merged cells and then delete the unwanted column. In the case where the column is the last one in the table, insert a new column to the right and then delete the unwanted column. If the user wants to delete the table by deleting the last column, they should select the whole table and delete it.



Cannot Delete Last Column.	This occurs when the user tries to delete the last column in a table.	Insert a new column to the right and then delete the unwanted column. If the user wants to delete the table by deleting the last column then they should select the whole table and delete.
Cannot Delete Last Row.	This occurs when the user tries to delete the last row in a table.	Insert a new row below and then delete the unwanted row. If the user wants to delete a table by deleting the last row then they should select the whole table and delete.
Cannot Delete Row.	This occurs when the user tries to delete a row that contains merged cells.	Split the merged cells and then delete the unwanted row.
Cannot import a read only file!	This occurs when the user attempts to import a read-only file.	Change the file's properties to render it not read-only, if possible. Otherwise, find a non-read-only version of the file.
Cannot insert row/column in the table with merged cells	This occurs when the user attempt to insert a row or column in a table with merged cells.	Split the merged cells and then insert the row or column.
Cannot modify ID of the element	This occurs when the user attempts to alter an ID attribute in the Properties dialog.	
Cannot Paste claims here.	The user has attempted to paste claims in a section of the specification in which they are invalid according to the DTD.	Find a valid position in which to paste claims and try again.
Cannot Paste paragraphs here.	The user has attempted to paste paragraphs in a section of the specification in which they are invalid according to the DTD.	Find a valid position in which to paste paragraphs and try again.



Cannot paste structured content at this location as this invalidates the document according to the DTD.	This occurs when the user tries to paste structure (for example text and tags) in an invalid position according to the DTD.	Find a valid position and try again.
Cannot Paste Structure here.	This occurs when the user tries to paste structure (for example text and tags) in an invalid position according to the DTD.	Find a valid position and try again.
Can not split current cell	This occurs when the user tries to split a cell that has not been previously merged.	Merge two table cells together and then split them.
Can't merge more than 2 cells.	This occurs when the user tries to merge more than 2 table cells.	Merge only 2 table cells.
Doctype not supported by Editor.	This occurs when the user tries to import a document that is not valid according to the PASAT-specific DTD.	
Element is referenced Continue with deletion?	This occurs when the user tries to delete a claim that is referenced. The user is given the option to delete the claim or to cancel the operation.	
@Export Error.	This error message should not occur. It indicates a validation error during export.	Validate the document and correct any errors that are displayed.
File already loaded.	This occurs when the user attempts to load a file that is already open in PASAT.	
Please see file: <ErrorFileName> for more details.	This error occurs when importing an XML instance.	Display the .err file as it may indicate if the error comes from the XML instance or the DTD. Contact i4i Support.



<p>@Selected entity not supported by this DTD.</p>	<p>This error should never occur. The message indicates that the user has tried to insert an entity that is not recognized by PASAT.</p>	<p>Build a custom character in tiff format.</p>
<p>The amount of text you are about to paste is larger than the recommended size (Approx. 50 pages). Do you wish to continue?</p>	<p>The user has attempted to paste a large amount of text into PASAT.</p>	<p>Divide the content to be pasted up into smaller sections and paste them each separately.</p>
<p>The instance has validation errors, to fix the instance use the Validate Instance from the Tools menu. Continue with export?</p>	<p>This occurs when the user tries to export a specification that is not valid. The user is given the option to continue exporting the specification, or to cancel the operation.</p>	<p>Correct the validation errors and then export the specification.</p>
<p>Unable to paste merged cells</p>	<p>This occurs when the user tries to paste a table that contains merged cells.</p>	<p>In the document the tables are being copied from, split the merged table cells before copying the table and pasting it into the specification.</p>
<p>Unable to paste table.</p>	<p>This occurs if a Paste Table operation is tried in an invalid position according to the DTD.</p>	<p>Position the cursor in a location that is valid for tables to be pasted in and try again.</p>



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11. PASAT utilizes a commercial off the shelf software product called s4/text, the license for which is included. The s4/text run-time software license agreement is contained on the following page.

12. Should you have any questions concerning this, please contact the USPTO patent electronic business center at ebc@uspto.gov.



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5. WARRANTIES AND LIMITATION OF LIABILITIES

All materials provided to customer are provided “as is” and neither sublicensor nor infrastructures for information inc. shall be liable for any indirect, incidental, special or consequential damages, damages for loss of profits, revenue, data or data use, incurred by the customer or any third party, whether in an action in contract or tort, even if sublicensor has been advised of the possibility of such damages. Liability of sublicensor and of infrastructures for information inc. for damages hereunder shall in no event exceed the fees paid by customer for this license.

Sublicensor does not warrant that: computer software will meet customer’s requirements, that programs will operate in combinations the customer may select for use, that operation of computer software will be uninterrupted or error-free, or that all errors will or can be corrected. There are no warranties, whether express or implied, including, without limitation, warranties of merchantability and fitness for a particular purpose.

Any Sublicensor liability is further controlled by Federal statute, e.g., Federal Tort Claims Act, 28 U.S.C. §§ 1346(b), 2671-2680 (disputes against the Government for negligent or wrongful acts or omissions); Big and Little Tucker Acts, 28 U.S.C. §§ 1346(a) and 1491 (disputes against the Government concerning express or implied contracts); and the Contract Disputes Act, 41 U.S.C. § 601 et seq.

6. GOVERNING LAW

This Agreement shall be governed by and interpreted under applicable federal laws.

7. ASSIGNABILITY

This Agreement is binding on both the parties to this Agreement, their successors and assigns and may not be assigned, conveyed or otherwise transferred by Customer without Sublicensor’s prior written consent.

8. GENERAL PROVISIONS

This is the entire agreement between Customer and Sublicensor pertaining to Customer’s right to use the Computer Software and Related Materials, and supersedes any other agreement or discussions between the parties, oral or written, and cannot be amended or modified other than by the written agreement of the parties. In the event that any portion of this Agreement is held by a court of competent jurisdiction to be invalid or unenforceable, then the remaining provisions of the Agreement shall survive unaffected. Without limiting any remedy to which Sublicensor may be entitled, Customer agrees Sublicensor shall be entitled to equitable relief.

9. SURVIVAL

The obligations and covenants of the parties described in Section 1, Section 3, Section 5, Section 6, Section 8, and this Section 9 shall survive the termination of this Agreement for any reason whatsoever.