The Boston Patent Law Association

Electronic Business with the U.S. Patent Office and World Intellectual Property Organization (WIPO)

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The goals of the present course are to help you achieve a basic understanding and proficiency of the electronic filing systems necessary to conduct business with the United States Patent and Trademark office (US PTO) and World Intellectual Property Organization (WIPO). In addition to the basic understanding this course is designed to give you and overview of the basic electronic business products and resources, as well as sufficient information about implementing electronic filing systems and resources in your law office even if you have not been fully exposed to the existing electronic filing system. For the purposes of this course I assume that your have basic computer and word processing skills.

I. ELECTRONIC FILING SYSTEM IN THE US PATENT AND TRADEMARK OFFICE[1]

1. Electronic Business Center (EBC): familiarizing yourself with what it is and what it is for.

The EBC provides electronic business users with access to the following resources:

- Customer Number Registration Forms;
- Public Key Infrastructure (PKI) Registration Forms;
- Patent Application Information Retrieval (PAIR);
- Electronic Filing System (EFS).

Any user of the EBC is required to obtain a customer number in order to have access to and use PAIR and EFS. Also a user is required to apply for and obtain a PKI certificate to have access to PAIR and EFS via security software supporting electronic business at the US PTO. Once a user obtains a customer number and a PKI certificate, the user can login to PAIR to access the status of a pending patent application, its history and image file wrapper via the Internet. The same customer number and PKI certificate are necessary to use EFS to file patent applications and various other submissions to the PTO electronically.

[1] Many images and portions of a slideshow provided in this paper are the slides prepared by the Patent Office for its training sessions. They are used in this paper with the kind permission of the Patent Office.

How does one get to the Electronic Business Center?

Visit the USPTO Website, www.uspto.gov & click on Online Business.

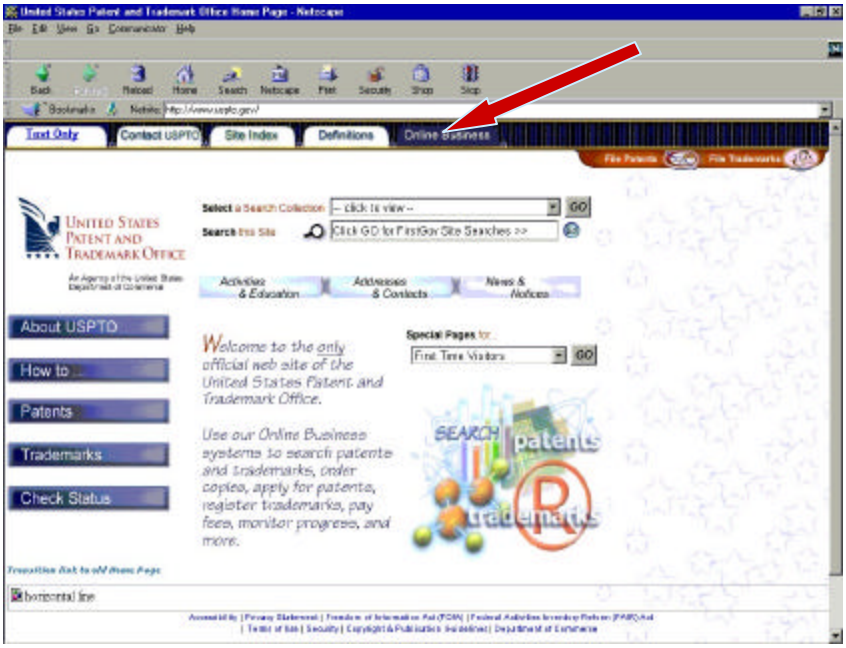


FIG.1

Click on:

Patent Electronic Business Center

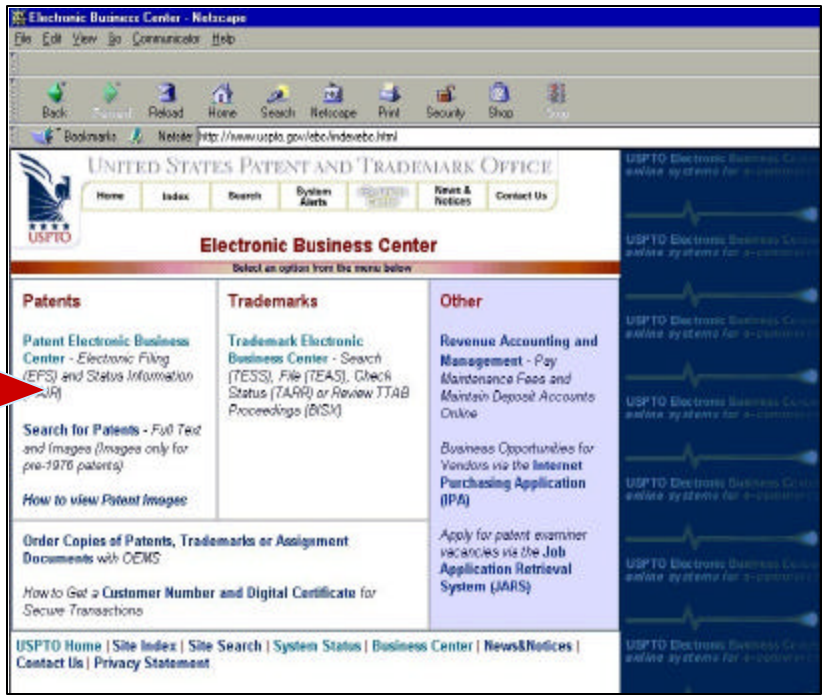


FIG.2

FIG.3

The information available to the new users contains a detailed explanation of a customer number application form and how to apply to get a new customer number issued, how to make a bulk address changes associated with the already issued customer number, procedures for the bar code label customer number requests, and how to change various data associated with the customer number.

The information available to the new users also contains a detailed explanation on what a certificate action form is, a description of the initial review of the certificate action forms and a number of helpful hints on troubleshooting PKI-related problems that may happen at the user's end.

The information about the PAIR system provided to the users relates to troubleshooting end-user problems, troubleshooting software problem, and handling questions related to the application data.

The information about the EFS provides explanations on PKI certificate, authoring and submission systems information to the end user.

Technical support personnel at the EBC, one of the best support centers I have encountered so far, is available to answer questions and resolve problems 18 hours a day **Monday-Friday from 6 am to Midnight (EST)**.

Contact Information:

Telephone:	**Local** (703) 305-3028 **Toll-Free** 1 (866) 217-9197
E-Mail:	EBC@uspto.gov
Facsimile:	(703) 308-2840
Address:	**U.S. Patent & Trademark Office,** Mail Stop EBC, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
Website:	**http://www.uspto.gov/ebc/index.html**

2. What is a customer number and what purpose does it serve?

A customer number is a number assigned by the PTO to a practitioner, group of practitioners or an independent inventor. A customer number is necessary to associate patent applications pending in the PTO filed by a registered practitioner or an entity (firm or a corporate patent department) or a per se independent inventor with a correspondence address, to associate all practitioners in the same entity with the same correspondence address and provide maintenance fee notification address to the PTO. Once an entity is assigned a customer number, the number can be used (together with the PKI certificate) to access and view the status of all pending patent applications (published and

unpublished) associated with that customer number. To illustrate, the function of a customer number can look as shown in FIG. 4:

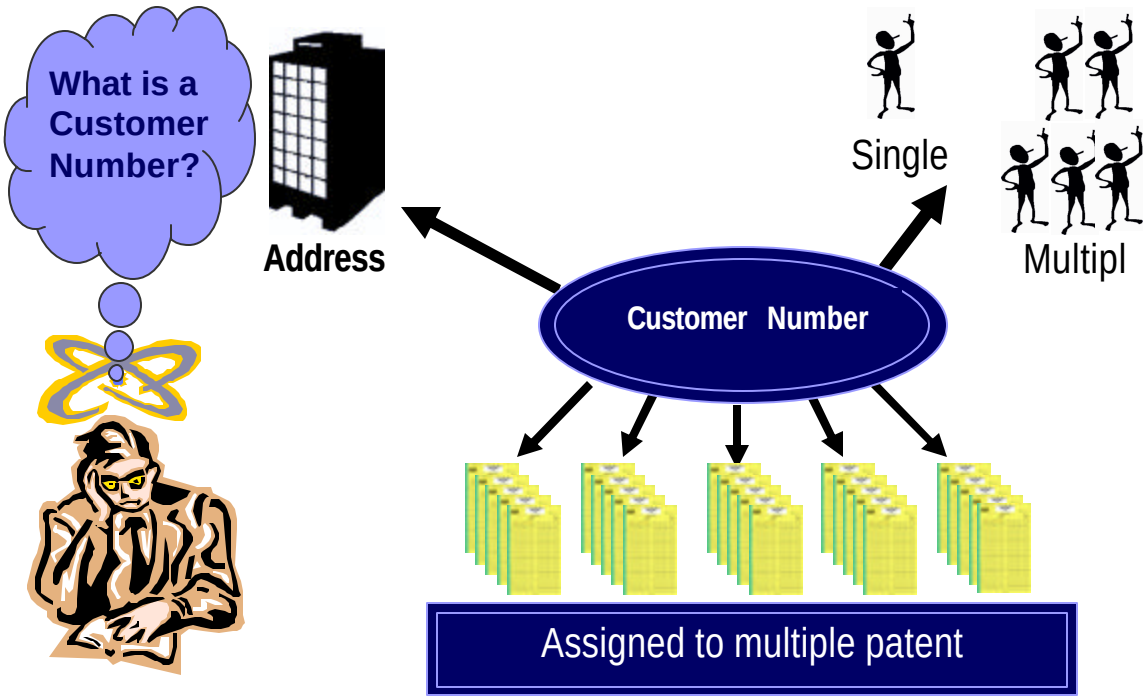


FIG.4

Each customer number is associated with one or more practitioners at a certain address and is assigned to multiple patent applications handled by the practitioners associated with that customer number.

It follows from the functionality of the customer number that it is a very convenient tool for changing the address associated with multiple applications. For example, under the old practice, it used to be that each application was associated with an address of record that had to be individually changed when that address of record had to be changed, requiring an individual piece if correspondence per each application. With a customer number, all it takes is to file one form to change the address associated with the number, and the address of record will be automatically change in all the applications associated with that customer number. The convenience of such simplified process is self-evident and illustrated in FIG. 5 below.

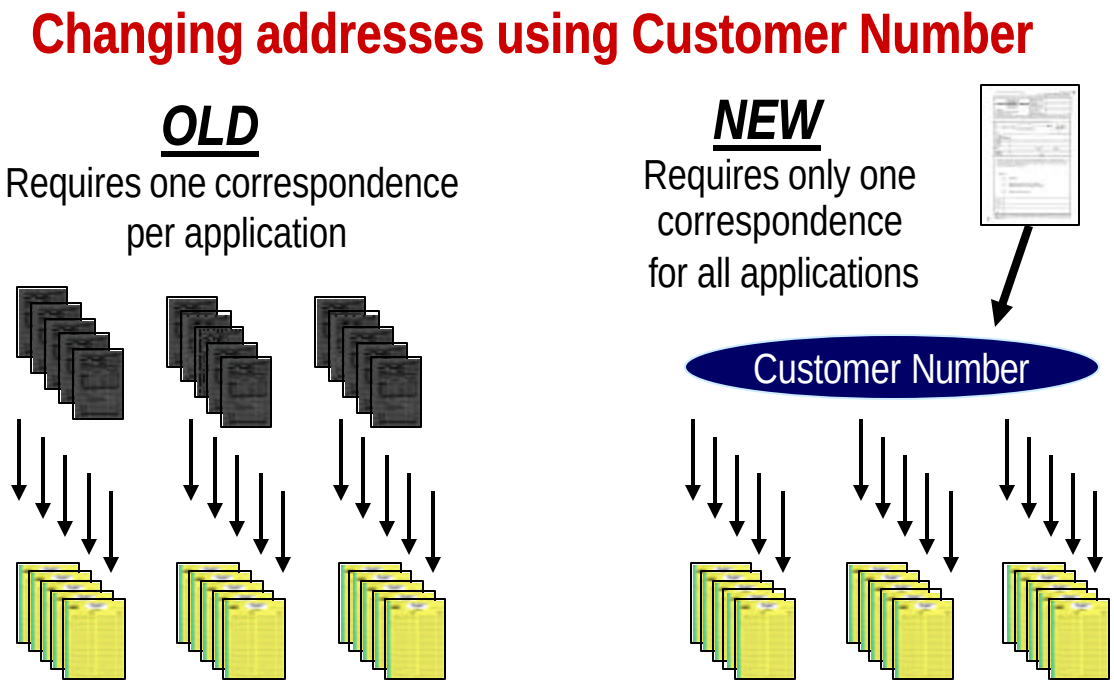
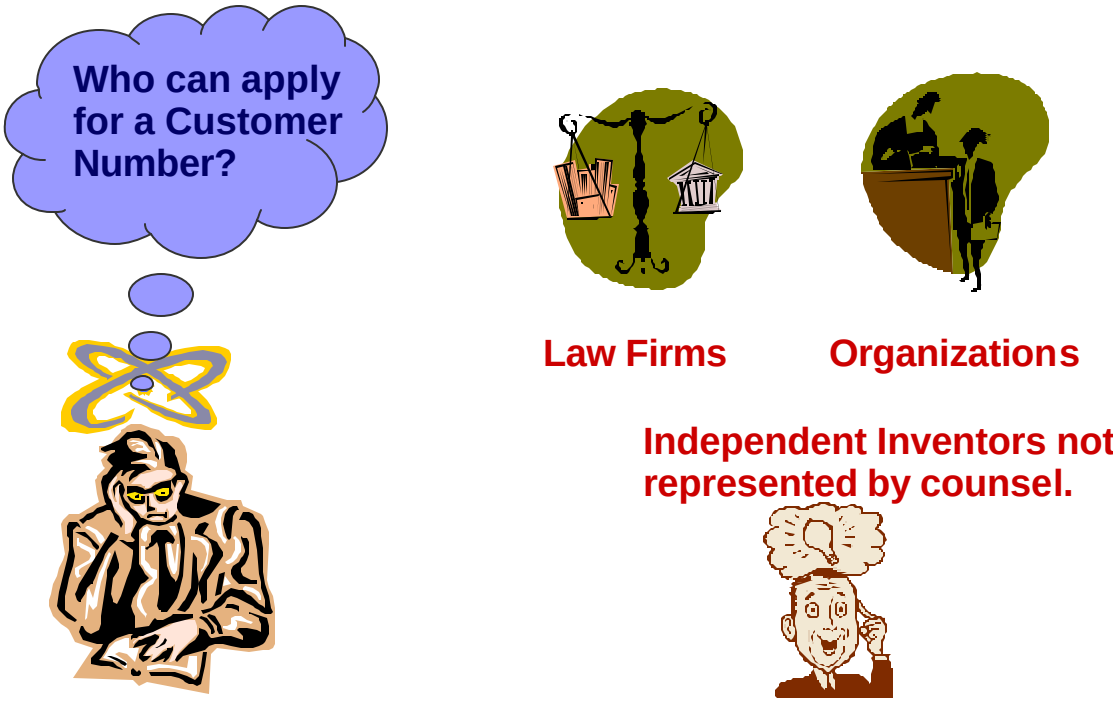


FIG.5

3. Who can apply for a customer number and how many customer numbers can one have?

Law firms and organizations having registered patent practitioners, as well as individual inventors not represented by counsel can apply and obtain a customer number.



Each geographically different office of the same law firm or organization can have its own customer number, if desirable. Remember that a customer number is associated with one address, so if a firm or organization desires to receive correspondence from the PTO at different addresses, it may make sense to associate each office with its own customer number.

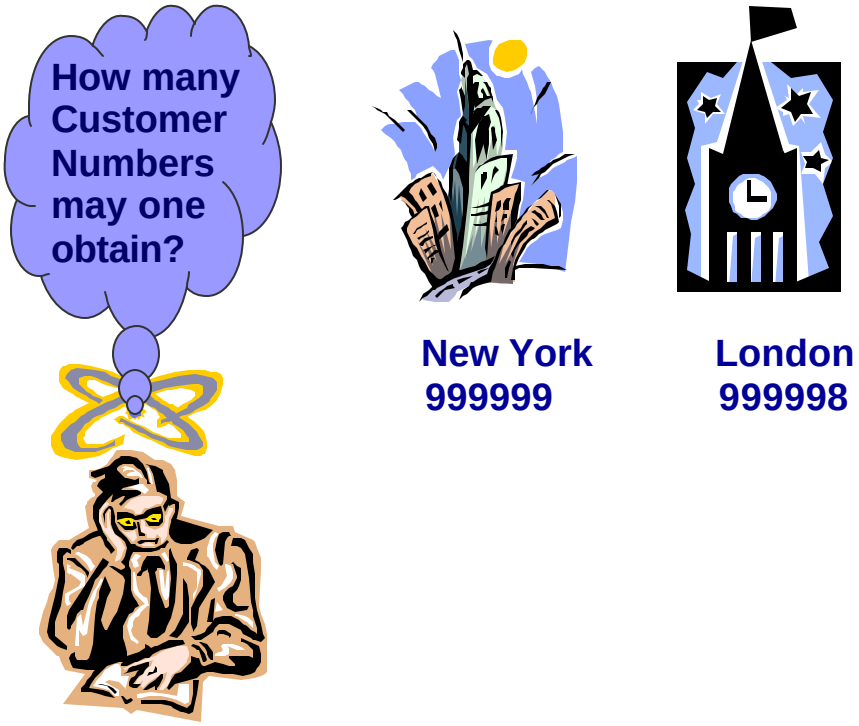


FIG.6

If different practice groups within the same geographic office location desire to have correspondence received by a specific practice group, each practice group can apply for and obtain its own customer number, as illustrated in FIG. 7.

A law firm can have different customer numbers associated with each of its major clients (FIG. 8). It can be a convenient tool to use a customer number associated with a particular client to view all the applications of that client handled by the firm on the Internet at one place, accomplish change of address and associate or remove practitioners from that customer number as practitioners join or leave the firm. As a word of caution, I would alert the firms who use different customer numbers for different clients to the following possible mistake. It seems quite easy to mistakenly associate a particular application of client 1 with a customer number of client 2 handled by the same firm. If that firm also associates in-house practitioners with its customer numbers for client 2,

such a mistake can make an application of client 1 viewable by in-house practitioners of client 2, which is a violation of duty of confidentiality to client 1.

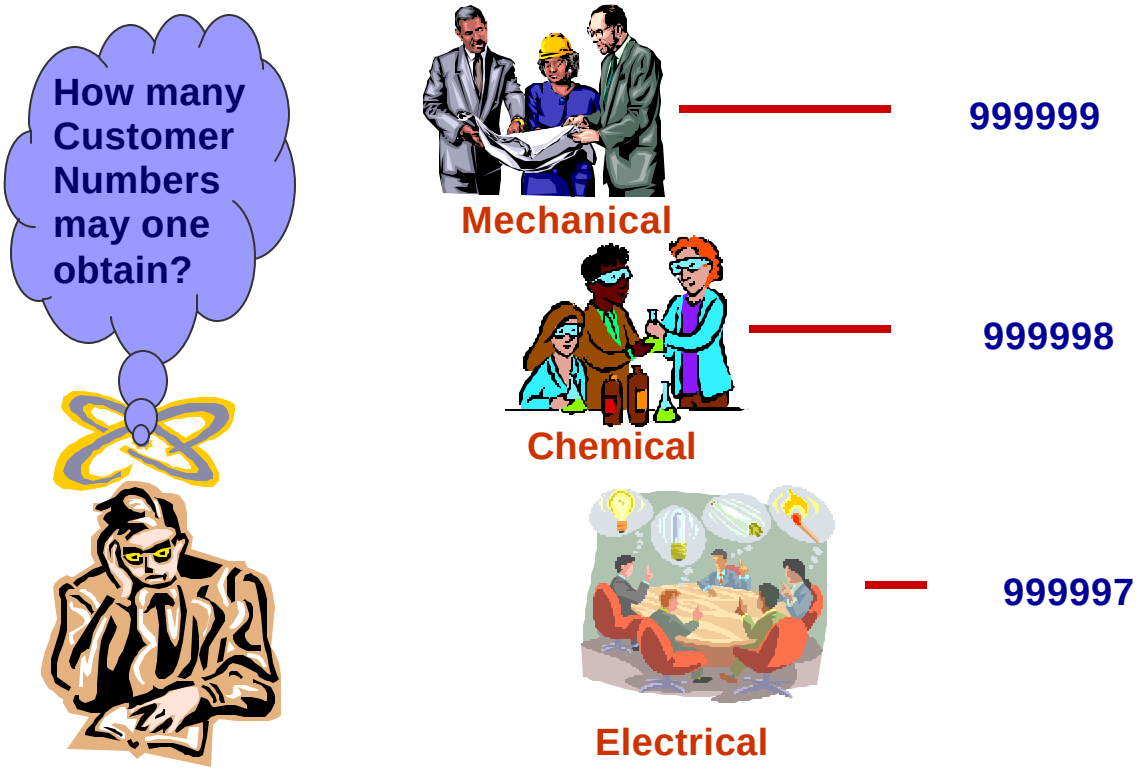


FIG. 7

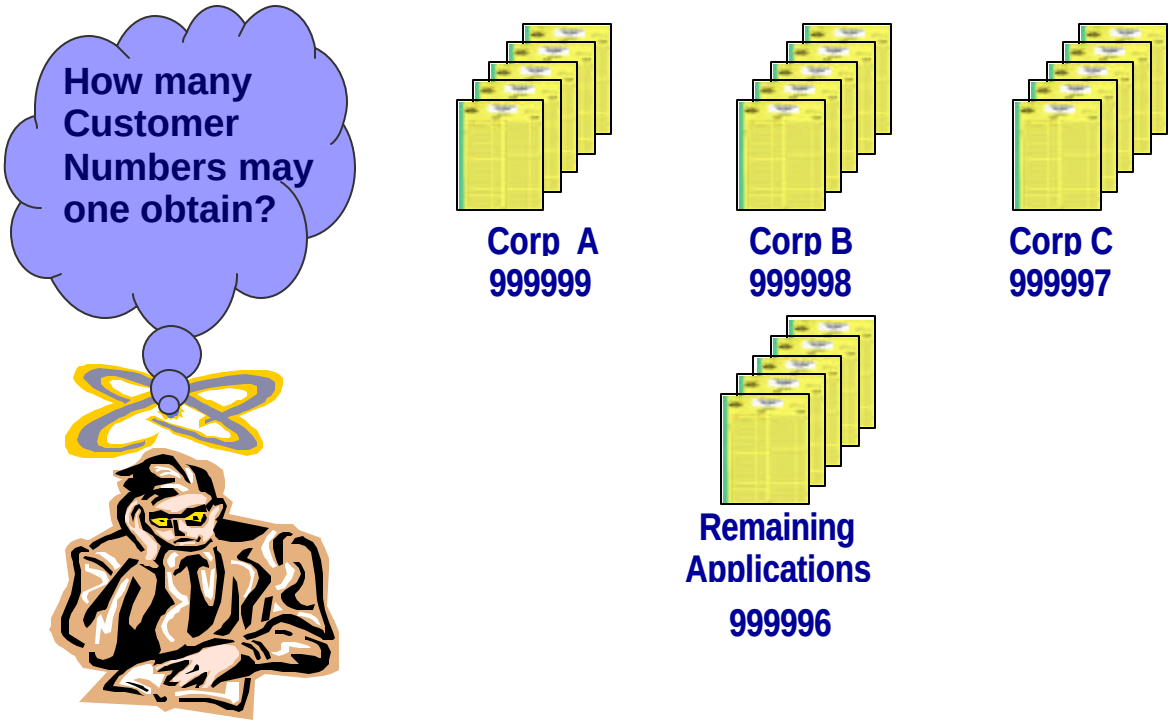


FIG. 8

4. How does one apply for a customer number?

To apply for a customer number, a new user should click on the "New User" link, as shown in FIG. 3, after which the user will be prompted to a page with instructions on how to obtain a customer number.

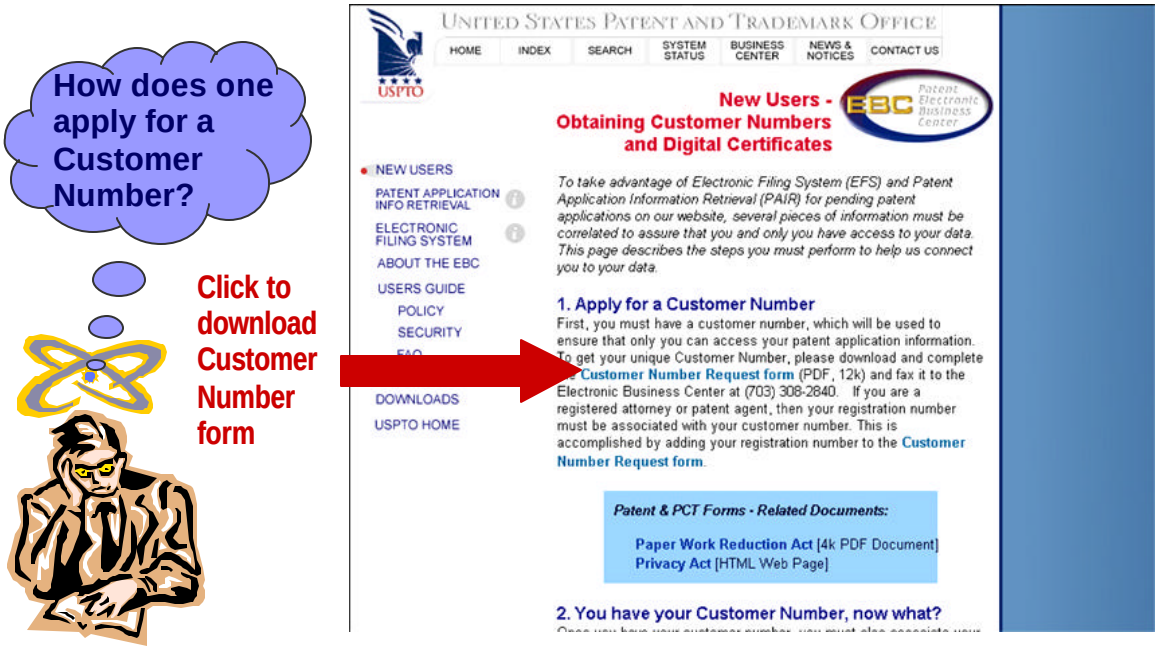


FIG. 9

The instructions contain a link to the Customer Number Request Form, which should be used to request the number. In that form, the entity requesting a customer number should specify the correspondence address associated with that customer number, list the practitioners of record by their PTO Registration Numbers, and specify one person by name and address to be the point of contact. The form then should be mailed or faxed to the PTO at the address or fax number provided in FIG. 10. After the PTO processes the request, the person listed as a point of contact will receive a letter with the assigned customer number. You are now ready to use the customer number for a variety of e-business applications.

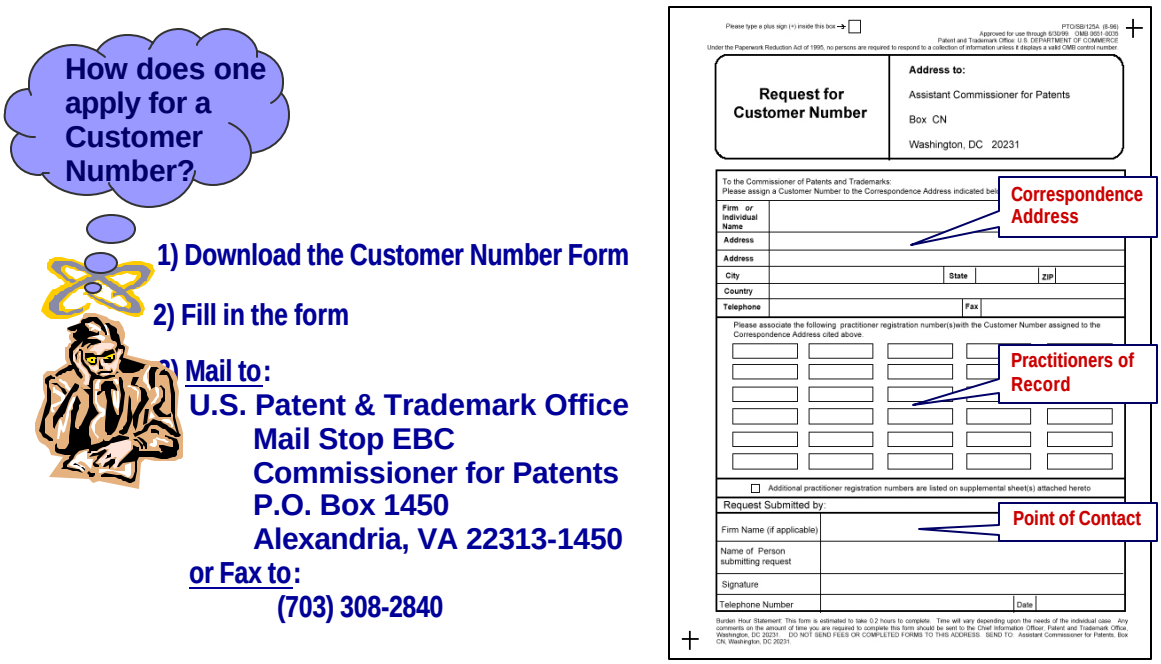


FIG.10

5. Examples of use of your customer number.

a) Use a customer number to associate an address of record with a patent application.

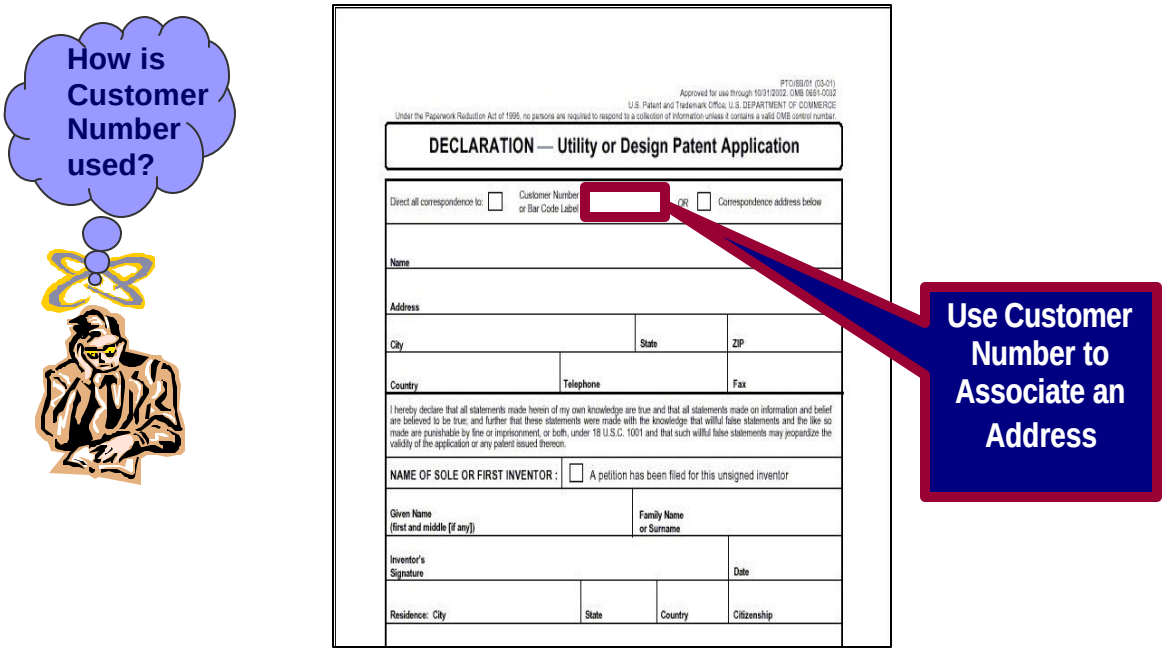


FIG. 11

For a paper filing of an application all you have to do is to type your customer number ones, and the application will be associated with the address corresponding to the customer number. For electronically filed applications the same procedure applied: a filer types in the customer number once in the electronic filing system (EFS) without having to retype the correspondence address. It also eliminates typing errors at the PTO end in the Office of initial Patent Examination, since nobody has to type in an address where the correspondence should be sent.

b) Use a customer number to associate all attorneys with an application in the power of attorney form.

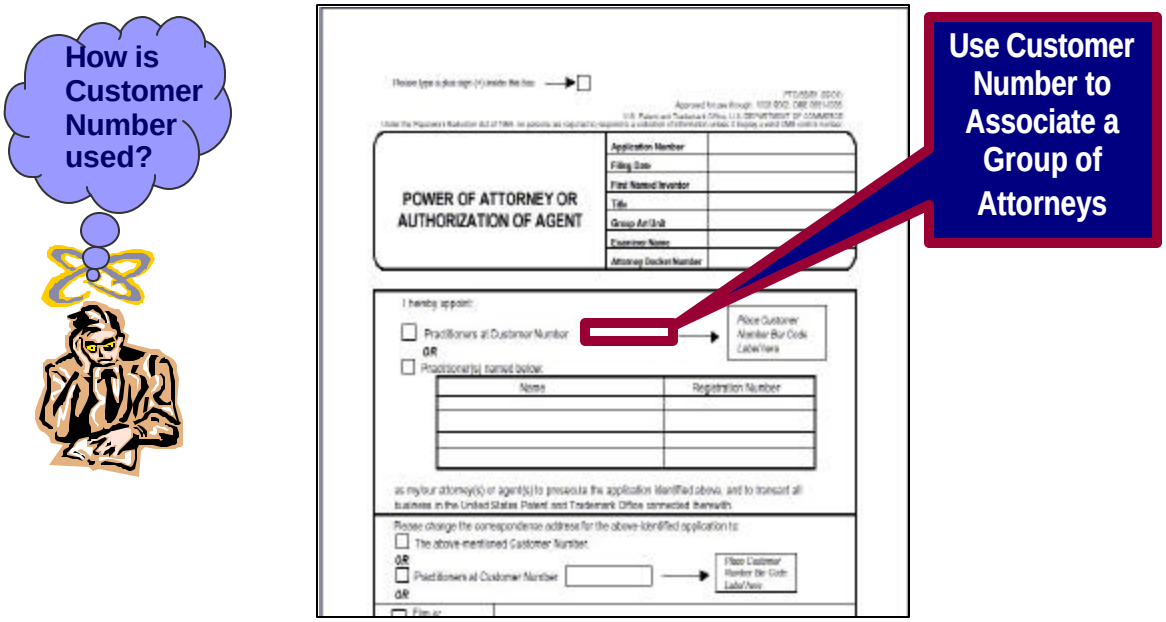


FIG. 12

Instead of listing each individual attorney who will have the power to act on an application and his or her PTO Registration Number, a customer number can be specified in the power of attorney form only once, giving each attorney associated with that customer number the necessary power to act on the case.

c) Associating existing patent application with a newly received customer number.

In a frequently encountered scenario, a firm with many pending applications obtains a customer number which now needs to be associated with the pending

applications. In an even more frequently encountered scenario an attorney or a group of attorneys leaves a firm and transfer a number of applications with them to a different firm with a different customer number or to a new firm with a newly received customer number. Now all of the transferred applications need to be associated with (uploaded to) a new number. How should the upload be done?

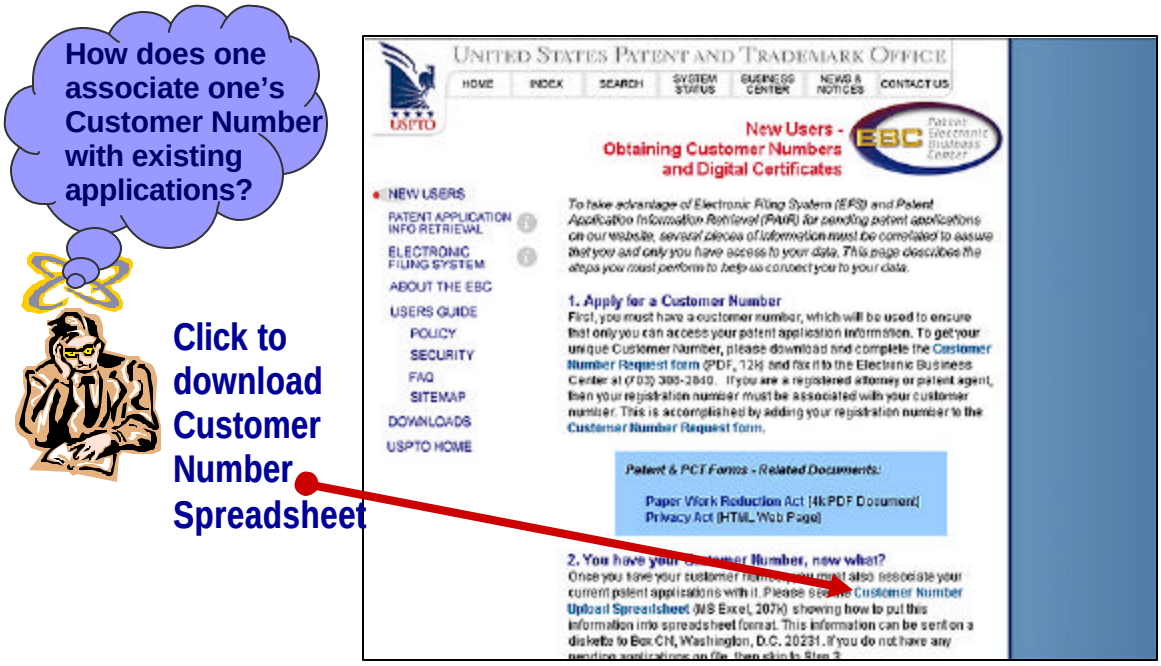


FIG.13

How do I change the address on my applications to my customer number ?

1) **Download the Customer Number Update Template**

2) **Fill in the Excel Spreadsheet**

- **Mail your disk to:**
  U.S. Patent & Trademark Office
  Mail Stop EBC
  Commissioner for Patents
  P.O. Box 1450
  Alexandria, VA 22313-1450
- **You will receive an address update report from USPTO**

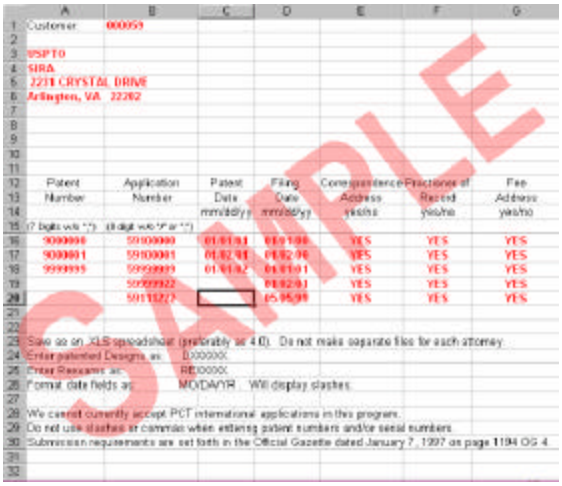


FIG. 14

The customer number update template should be submitted in format shown as a SAMPLE above - no additional information is needed (e.g., attorney docket numbers). The template should be accompanied by a cover letter with information including contact person's name, telephone number and email address and include the signature of one Registered Practitioner associated with the customer number. At least 2 of the following 4 columns must be included to upload successfully:

Patent Number **Application Number** **Patent Date** **Filing Date**

EBC staff will review addresses and will contact you regarding any discrepancies in correspondence address before completing the upload.

II. GETTING STARTED WITH THE EFS – HARDWARE AND SOFTWARE REQUIREMENTS

1. Setting up your EFS workstation

Hardware Configuration Requirements

- **Processor**: 266 Mhz or higher Pentium Processor or higher (or similar AMD processor)
- **Memory:** 128 Megabytes (MB) RAM or more.
- **Free Disk Space:** 57 Megabytes
- **Operating System - (*one* of the following):**
  Microsoft Windows 98SE, Windows ME
  Windows2000 with Service Pack 2 or later
  Windows NT 4.0 with Service Pack 6 or later
  Windows XP with Service Pack 1
- **Printer:** Any standard compatible printer.
- **Printer Driver(s):** Verify these are up-to-date.

- **Screen Display:**: 1024 x 768 or higher
- **Modem:** Internet connection at 56 Kbps or faster.
- **Scanner:** Any scanner capable of producing black & white (no gray scale) TIFF images at 300 dpi with CCITT Group 4 compression, 8.5" x 11" page size maximum.

Software Configuration Requirements

- **MS WORD – (one of the following):**
  Microsoft WORD 97
  Microsoft WORD 2000
  Microsoft WORD XP (including Office Assistant)

- **Graphics Software:** Any software with TIFF image formatting functionality.

- **EFS Software Components (All are required and can be downloaded from the EBC web site at the PTO):**
  USPTO-Direct – any version (a.k.a, "PAIR" or "Entrust" Software)
  PASAT Version 1.1, Build 4.0
  ePAVE 5.1
  XPORT Version 1.0

- **Browser – (one of the following):**
  MS Internet Explorer 5.0 with Service Pack 3
  MS Internet Explorer 5.5 with Service Pack 2 with an MSXML upgraded to MSXML 3.0 Service
  Pack 2. Follow the download instructions on: **www.microsoft.com/downloads**

- **Plug-Ins (follow instructions for DOWNLOAD):**
  TIFF viewer plug-in, **"ALTERNATIFF": www.alternatiff.com (follow instructions)**

Mathematical viewer plug-in, **"MATHPLAYER":**

http://www.dessci.com/en/products/mathplayer/welcome.asp **(follow instructions)**

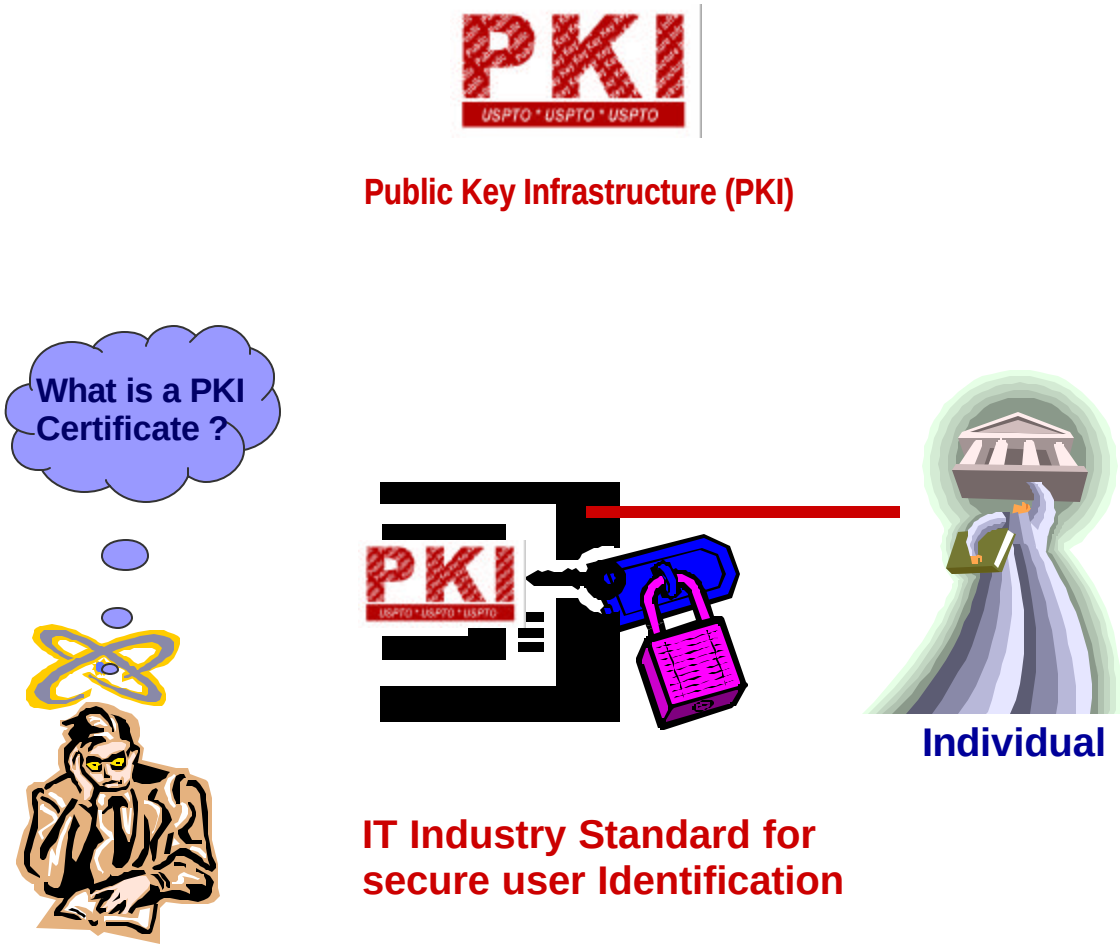


FIG. 15

PKI serves to comply with the requirements of 35 USC § 122 to preserve secrecy of patent applications and related data. Since electronic communication between the practitioners and the PTO takes place over the Internet, it is necessary to make sure that such communication requires confidentiality, access control and authenticity (the PTO needs to know that it is communicating with me and that I am who I say I am). To ensure that the secrecy requirements are met, the PTO serves as a Certificate Authority and issues digital certificates to the practitioners and independent inventors. Two kinds of PKI certificates are available from the PTO: a high level (standard) PKI certificate and a low level PKI certificate. The low level PKI certificate can be used only to submit a new utility or provisional patent application. The high level PKI certificate can be used to file

the following submissions: new utility and provisional applications, biosequence listings in the Computer-Readable Format (CFR), assignments, electronic Information Disclosure Statements, pre-grant publications.

FIG. 16

A low-level PKI certificate is NOT held by an individual, therefore there is no application process necessary to obtain such a certificate. The certificate is created by a user and remains resident on the USPTO database while the user is preparing an electronic submission.

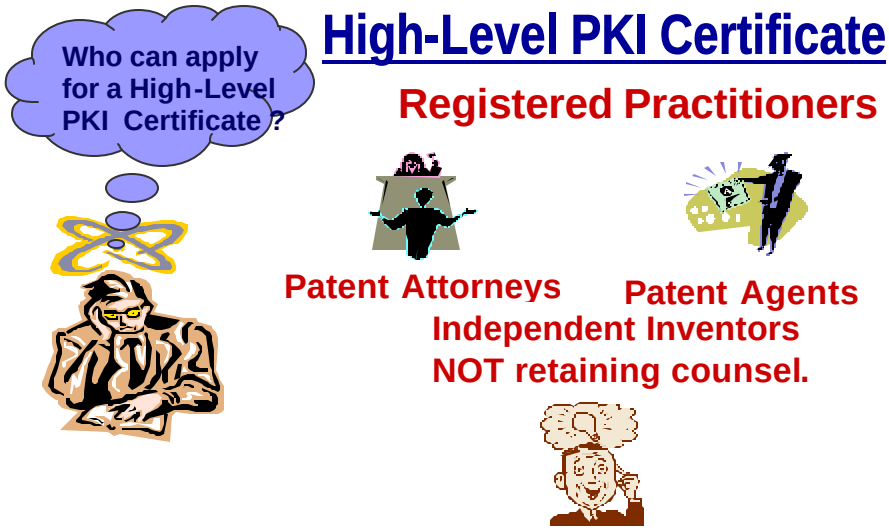


FIG. 17

FIG. 18

FIG. 19

The link where the arrow is pointing to prompts a user to a Certificate Action Form, which a user needs to download and fill in following the instructions on the form. This form must contain an original signature of the registered practitioner (or independent inventor) and be notarized by a notary public. Because of the notarization requirement, the form cannot be faxed to the PTO, but should be mailed to:

U.S. Patent & Trademark Office
Mail Stop EBC
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

After the PTO processes the Certificate Action Form, a user will need to set up an Entrust Profile on his or her computer. An Entrust Profile is a set of files stored on the computer's hard drive and associated with a High-Level PKI Certificate which identifies that specific user.

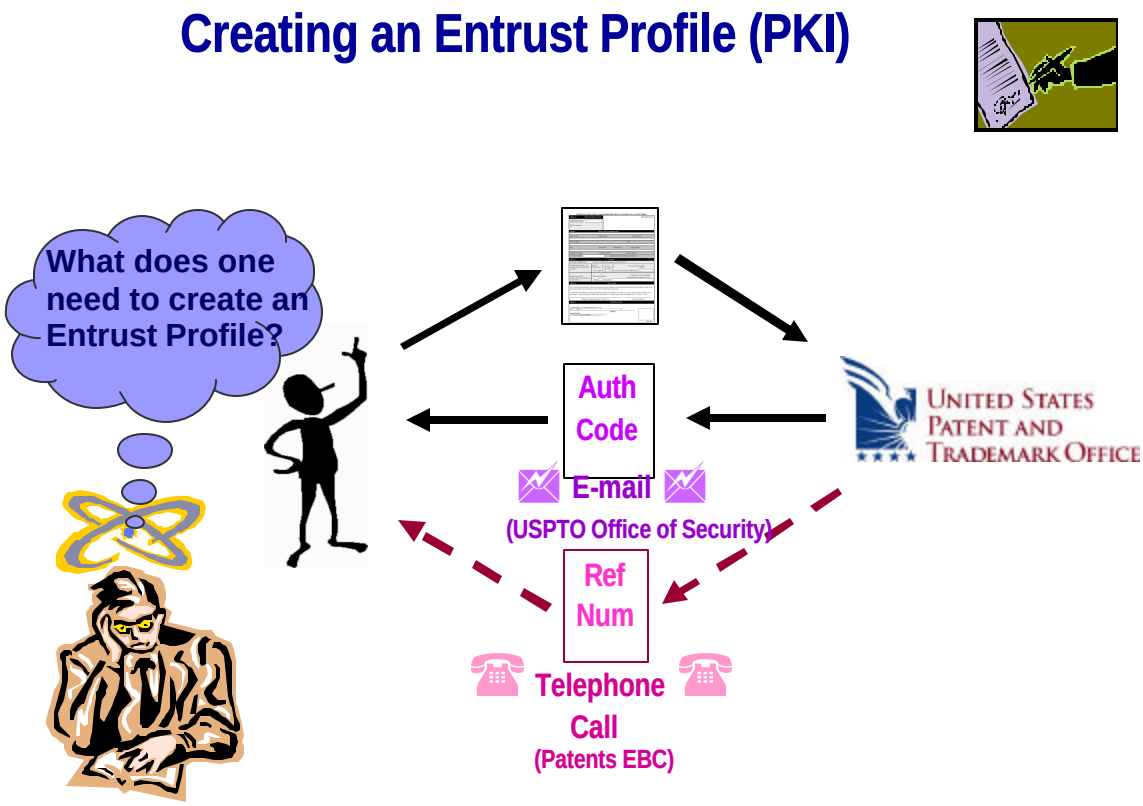


FIG. 20

As illustrated above, after a user sends the completed and notarized Certificate Action Form to the PTO, the PTO will process the form and send back to the user two piece of correspondence – one by e-mail and one by regular mail or phone. The user will receive an e-mail from the PTO which will contain an authorizations code necessary to create an Entrust Profile. The user will also receive the reference number necessary to create an Entrust Profile separately by mail or by phone.

FIG. 21

The next step is to download the USPTO Direct (PAIR) software from http://www.uspto.gov/ebc/downloads.html. Click on PAIR Software Version 6.0, then

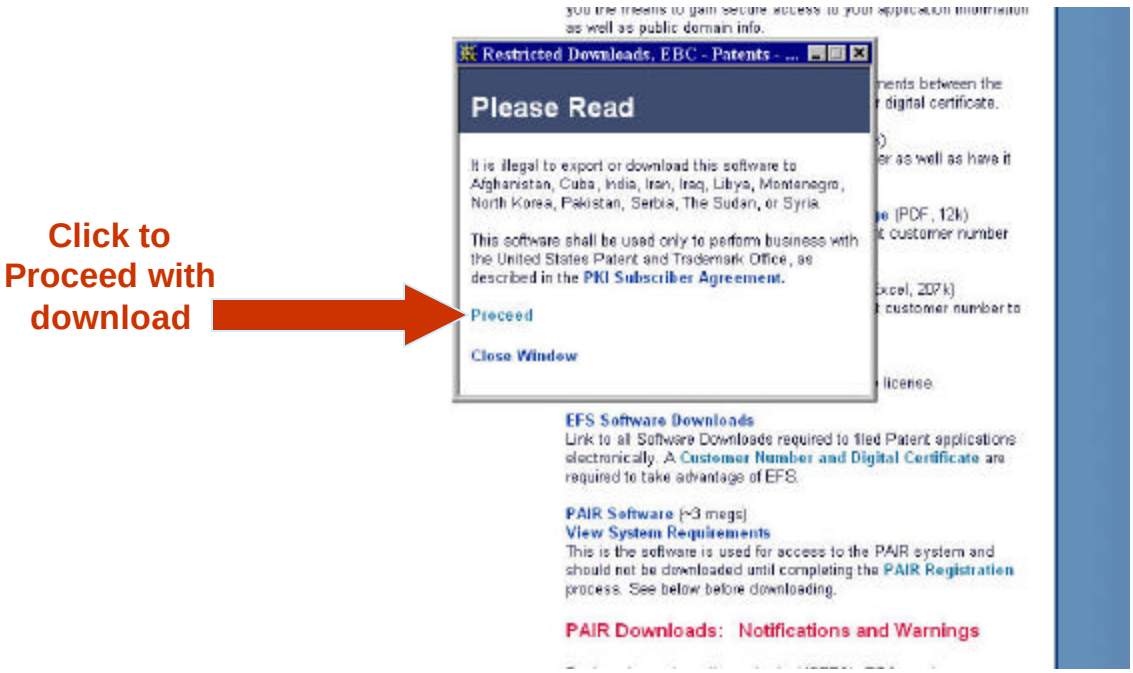


FIG. 22

If for any reason a download will not be allowed, a user should contact the EBC to obtain a CD of the software which can be mailed to the user.

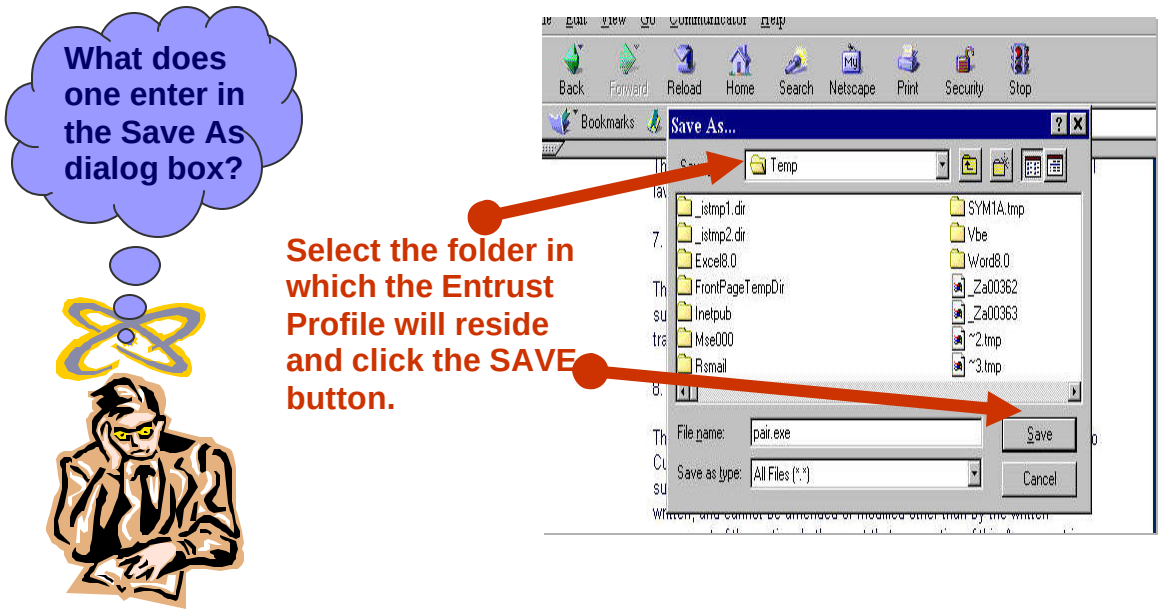


FIG. 23

To install the software:

- Double-click on download file
- Follow instructions to complete installation
- Icon will be placed on your desktop

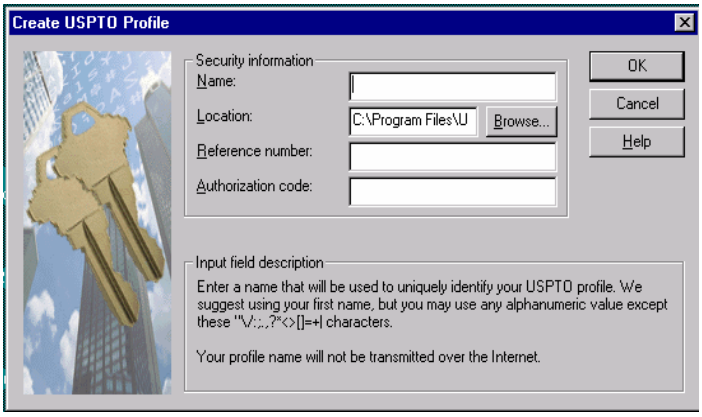
- Double-click on desktop icon
- Follow instructions to set up profile using reference number and authorization code provided by the USPTO

Security Information Fields:

Name: PKI Certificate Holder's First & Last Name.
Location: File where Entrust Profile files will reside on the computer.
Reference Number: User received this number from the Patent EBC via telephone.

Authorization Code: User received this code from the USPTO Security Office via e-mail.

An illustration of the computer screens corresponding to the security information screens are shown below.



Password must include at least 1 number and 1 capital letter, for a minimum length of 8 characters. Do not use Name.

WARNING: Attempting to reuse Reference Number and Authorization Code will DISABLE your certificate.
Reference Number and Authorization Code can only be used to create your profile ONE time.
Once a certificate I disabled, the customer needs to contact the Patent EBC.

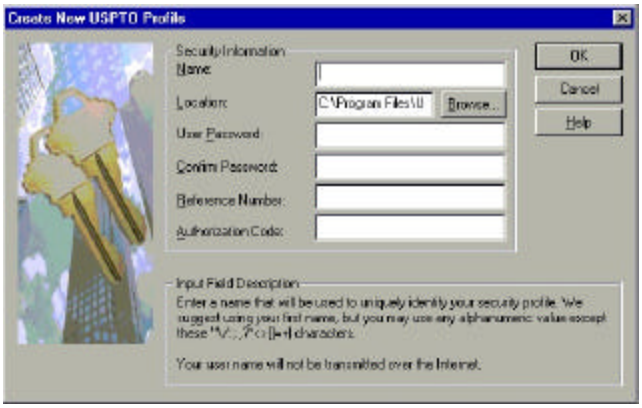


FIG. 24

The password entry screen will allow the user to create, enter and re-enter the password for security purposes. The password must include at least 1 number, at least one capital letter, have a minimum 8 characters and not be a name. Each PKI certificate may be used by the certificate holder plus one person under the direction and control of the holder, with a limit of two concurrent users. In a law firm or corporate IP setting, the two users would normally be a practitioner and his or her assistant.

How does one find the High-Level PKI Certificate on the computer hard drive? A set of files (5-6 files prefaced with the PKI Holder's Name entry from profile creation session) will be copied in C:\Program Files\ USPTO, as illustrated below.

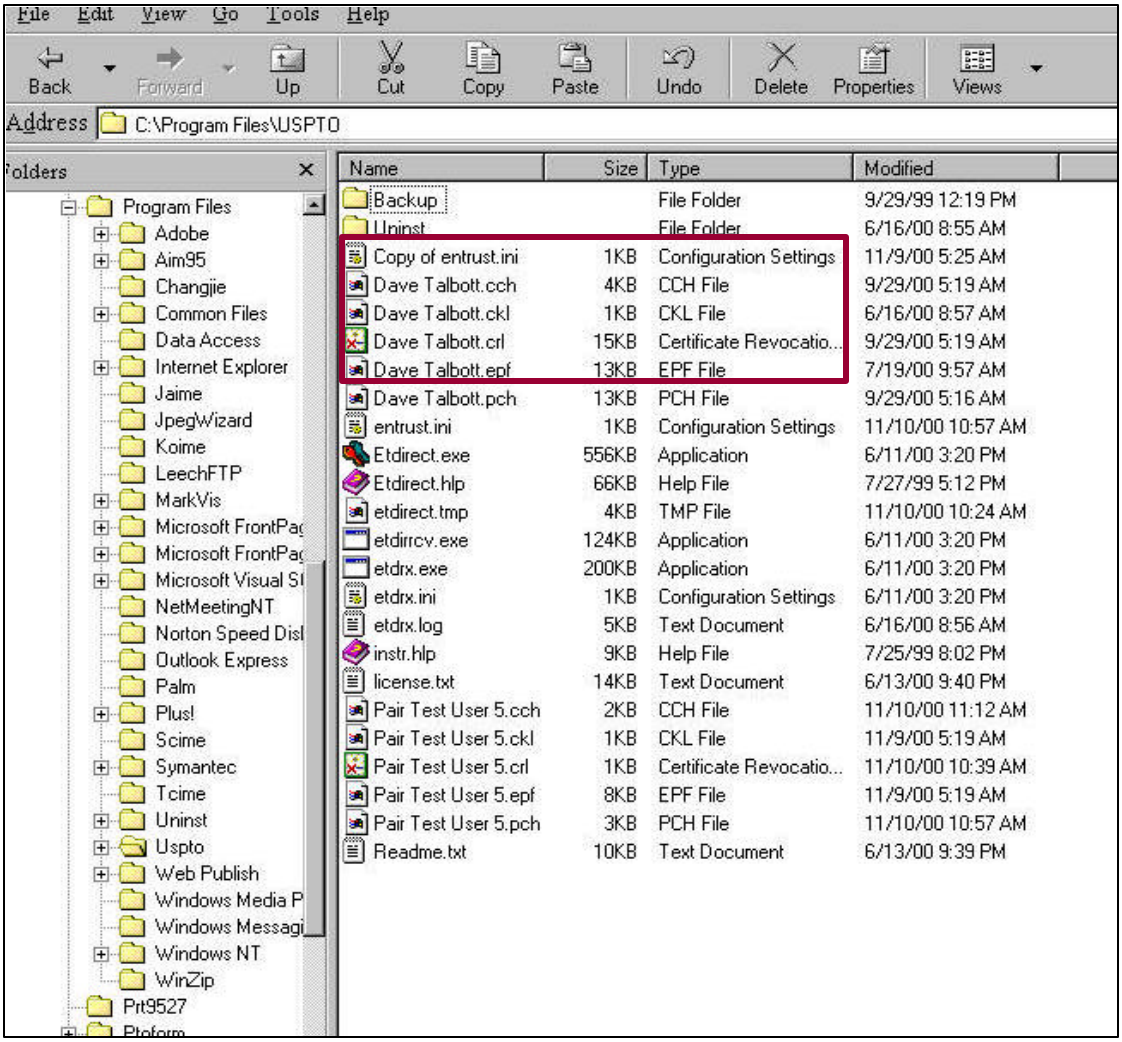


FIG. 25

<u>To use PAIR and PKI Certificate on a second machine:</u>

- Load USPTO Direct software
- Copy your profile from first machine to the second machine (C:\Program Files\USPTO – see previous page)
- Launch USPTO Direct and click Browse button to locate and select the PKI Certificate

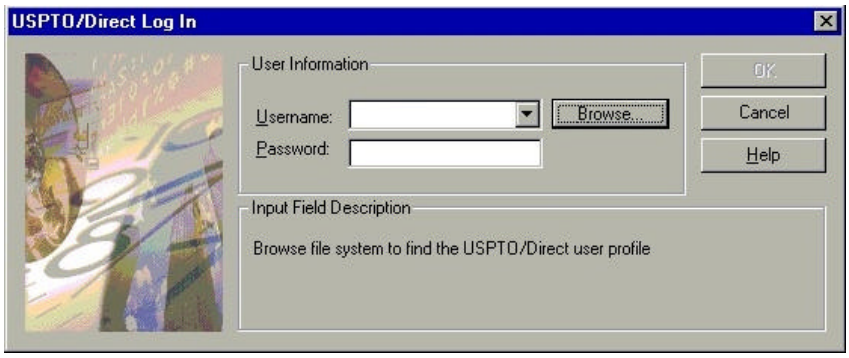


FIG. 26

Does the PKI Certificate expire?

- Certificate renews one year from date of issue.
- The renewal is automatic and is not noticeable unless the certificate has been copied onto multiple computers.
- If the certificate has been copied, it will be renewed on the first PC that logs into PAIR on the first day following the one year anniversary.

When a second PC attempts to log into PAIR the following error message will appear:

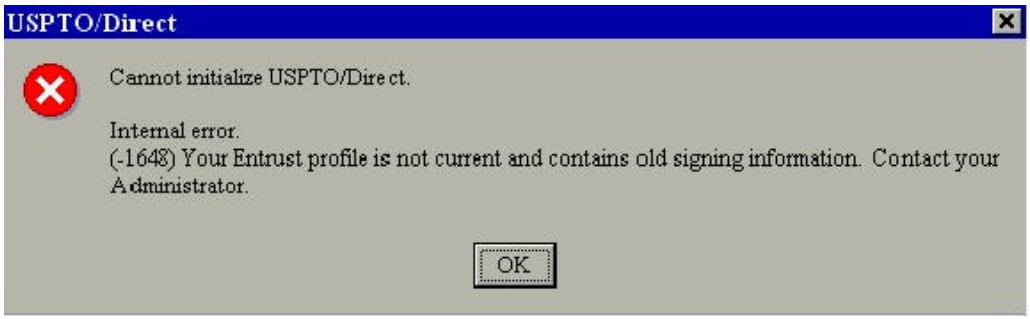


FIG. 27

To correct:

- Copy the profile from the PC (FIG. 25) that was able to successfully log on to a floppy disk
- On the second PC, replace the existing expired profile with the renewed profile from the floppy disk

Using Customer Number & PKI

What advantages do the Customer Number and the PKI Certificate provide?

1) Access to PAIR

2) Necessary for EFS

3) Powerful, convenient tools for a secure cyber environment to conduct on-line business.

The PKI Certificate and Customer number uniquely associate a particular person to a group of patent applications as follows:

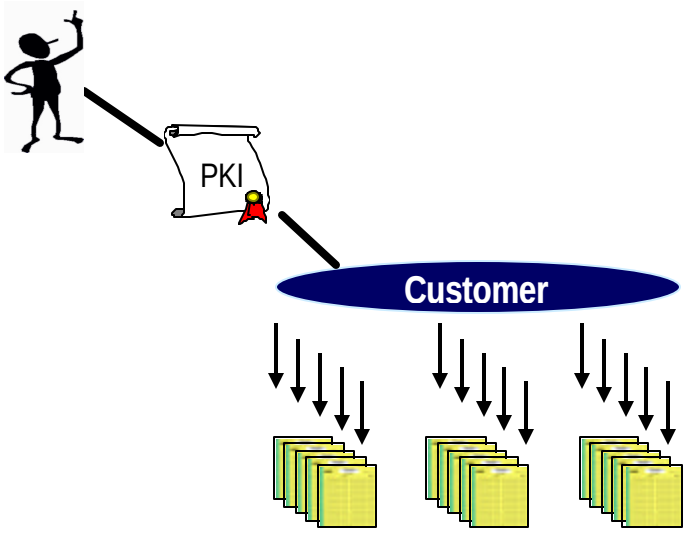


FIG. 28

Each individual at the firm with a certain customer number must have its own PKI certificate to access the same group of applications through the same common customer number as illustrated below. Most entities (firms and corporations) actually use that PKI/common Customer Number structure in their practice.

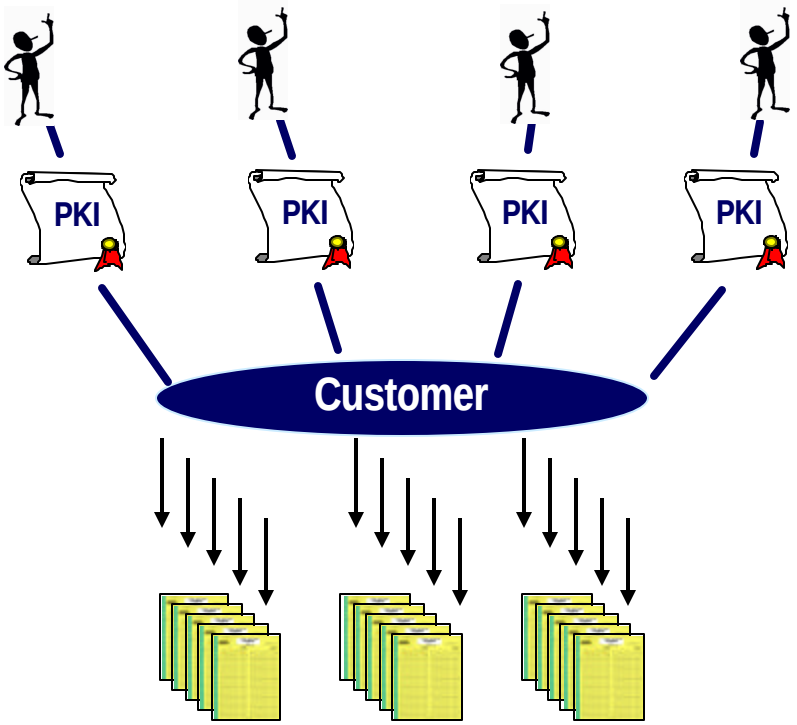


FIG. 29

If a entity uses different customer numbers to associate them with different groups of applications, each practitioner at such entity can associate his or her single PKI certificate with those multiple customer numbers and use that single PKI certificate to view multiple groups of applications as illustrated below:

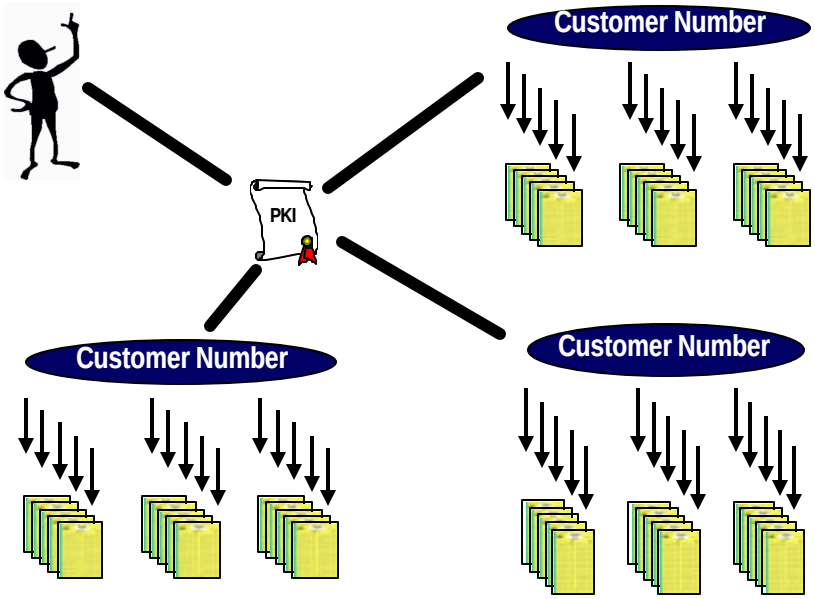


FIG. 30

Therefore, if a law firm desires to maintain multiple customer numbers for its major clients (Corp A, Corp B, Corp C), each practitioner at the firm needs to get only one PKI certificate associated with the multiple customer numbers, which, in turn, are associated with the groups of applications the firms handles for Corp A, Corp B and Corp C. Registered practitioners in Corp A (as well as Corp B and Corp C) can associate their PKI certificates with the same customer number and get access to its applications handled by the firm. The firm can also have a "default" customer number for all other applications, as shown below:

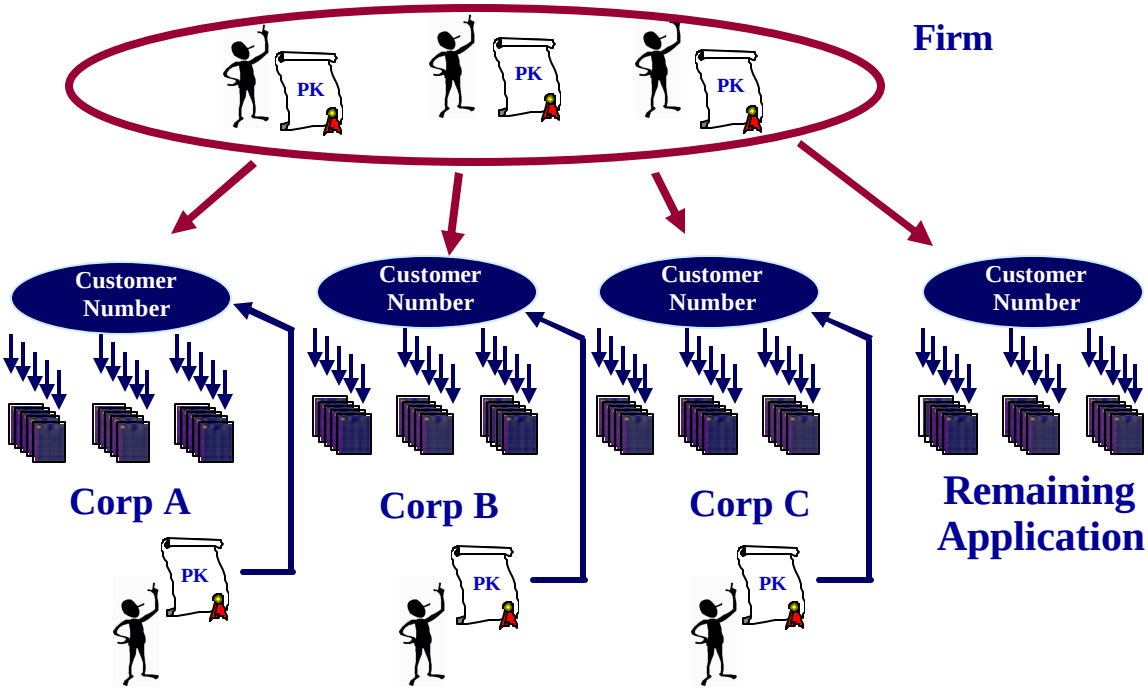


FIG. 31

Similarly, a corporate in-house patent department may decide to obtain multiple customer numbers associated with the groups of applications handled by different law firms (Firm A, Firm B, Firm C). Each practitioner in the corporation needs to get only one PKI certificate associated with the multiple customer numbers, which, in turn, are associated with the groups of applications the firms handles for Firm A, Firm B and Firm C. Registered practitioners in Firm A (as well as Firm B and Firm C) can associate their PKI certificates with the same customer number and get access to its applications they

handle for the corporation. The corporation can also have a “default” customer number for all applications prosecuted in house, as shown below:

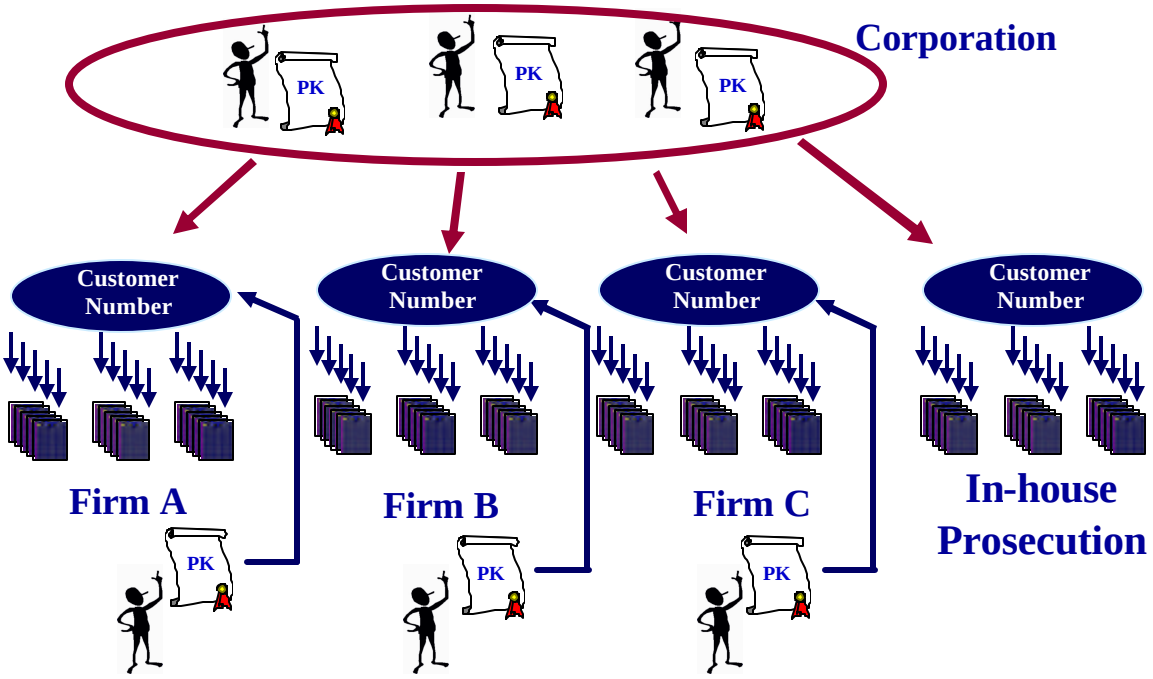


FIG. 32

EFS Overview

The main goal of the EFS is to facilitate electronic authoring and secure submission of patent application documents to the USPTO via the Internet. EFS makes it possible to apply the Internet and e-commerce technologies to existing patent practice. Some of the advantages of electronic systems are:

- Reduced mailing fees and inconvenience.
- Flexibility and convenience when filing:
  - ✓ 24 hours a day, 7 days a week from almost anywhere, over the Internet
- Facilitation of e-filing and accuracy for Pre-Grant Publication.
- Automatic validation of EFS submissions for completeness and USPTO business rules.
- Immediate Electronic Acknowledgement Receipt:
  - ✓ No delay while waiting for postcard (there is no postcard).
  - ✓ Application Serial Number and Confirmation Number can be instantly received and used for same day paper filings.
- Rapid assignment recordation and notification.
- Automatic paragraph and claim numbering facilitates future amendments.

The Patent Office's web site contains EFS software and technical documentation at http://www.uspto.gov (click on File Patents).

In essence, ePave is a submission tool which helps a filer to take an assembled application and file it electronically win the PTO together with the forms either generated by the program itself (transmittal, application data sheet, fee calculation sheet) or provided by the application (declaration and power of attorney, assignment). While preparing a submission, users will navigate through topic and document specific lists to create application submission documents to be packaged into a Submission Packet for transmission to the USPTO.

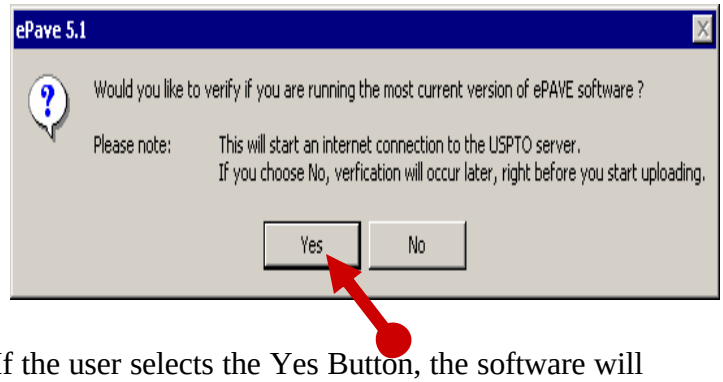
The main function of the ePave submission tool is to gather all the information relevant to the application, such as the type of a submission (there are 5 possible types of submissions that can be filed via ePave), inventors' names and addresses, the practitioner's name, customer number and PTO registration number, title of the invention, information about the assignee(s) and assignor(s) in an assignment is filed, numbers of US patents or patent publications if an IDS is filed, information about the claims to calculate the fee due with the filing, and PKI certificate of the filer to accomplish the transmission of the assembled submission to the PTO.

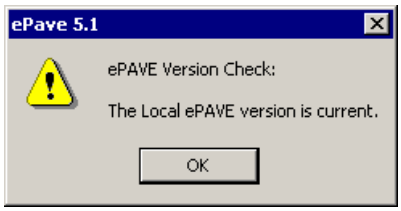
1. Launching ePave to assemble a submission to file with the PTO.

Launch ePave from your desktop, you will see the initial screen with the NEXT button:

ePAVE Version Check Function

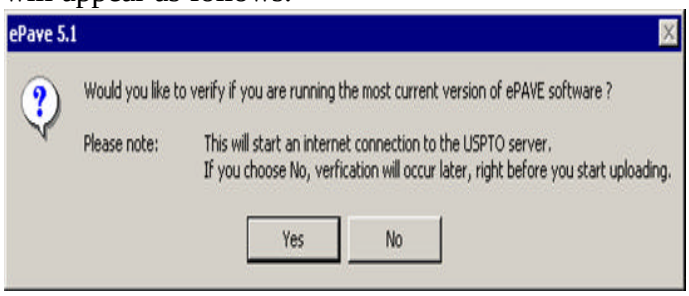
If the ePAVE Version Check Function is enabled, the version verification dialog box will display.





If the user selects the Yes Button, the software will start an internet connection with the USPTO server and verify the version.
If the most current version of ePAVE is being used, the software will display the "current" Version Check dialog message box.

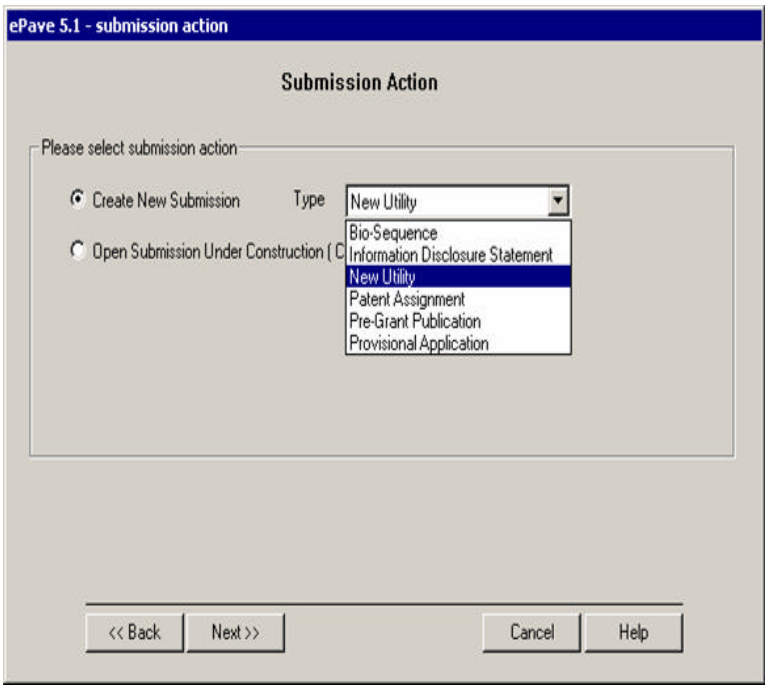
If the ePAVE Version Check Function is enabled, the version verification dialog will appear as follows.



If the user selects the Yes Button, the software will start an internet connection with the USPTO server and verify the version. If the an older version of ePAVE is being used, the

software will display the “ePAVE is not current” error message box. User needs to upgrade to latest version (download from website or from a CD).

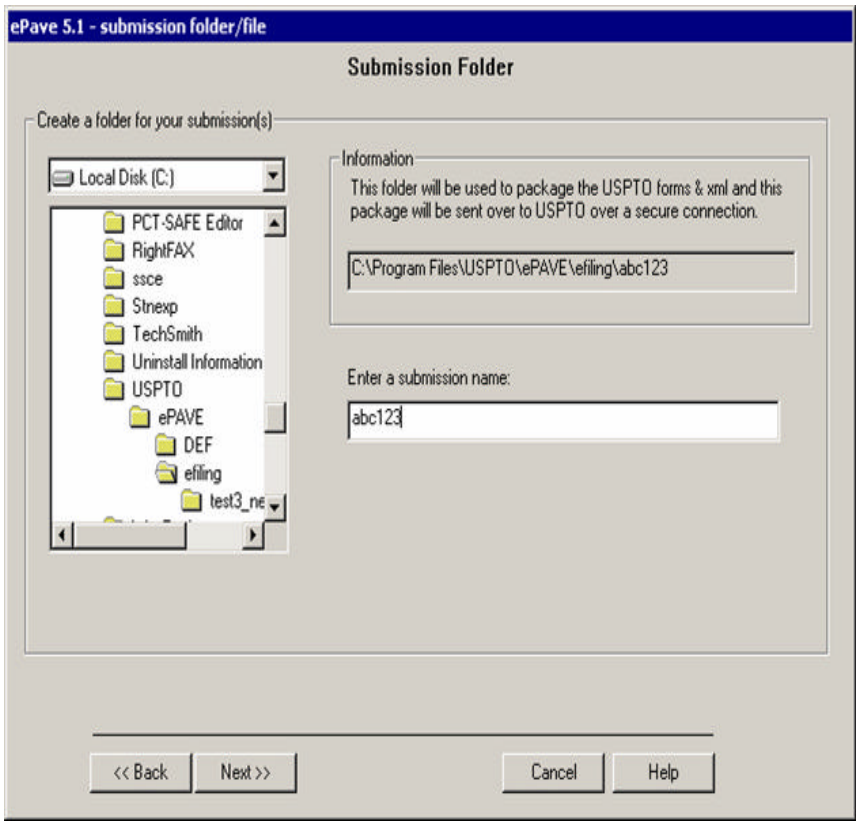
At the next step the user will be presented with the Submission Action Screen:



User will select the Create New Submission option and select a Type from the pull-down menu:

- Bio-Sequence
- Information Disclosure Statement
- New Utility
- Patent Assignment
- Pre-Grant Publication
- Provisional Application

A user will create a submission folder name and enter it in the Enter a submission name: entry blank. Folder name should be 25 or fewer alphanumeric characters. Try not to use periods or dashes or any symbols which are not letters and numbers when entering the submission name.



2. Providing common data elements

ePAVE will progress in the following sequence:

Add common data elements

Application Data Sheet

Declaration

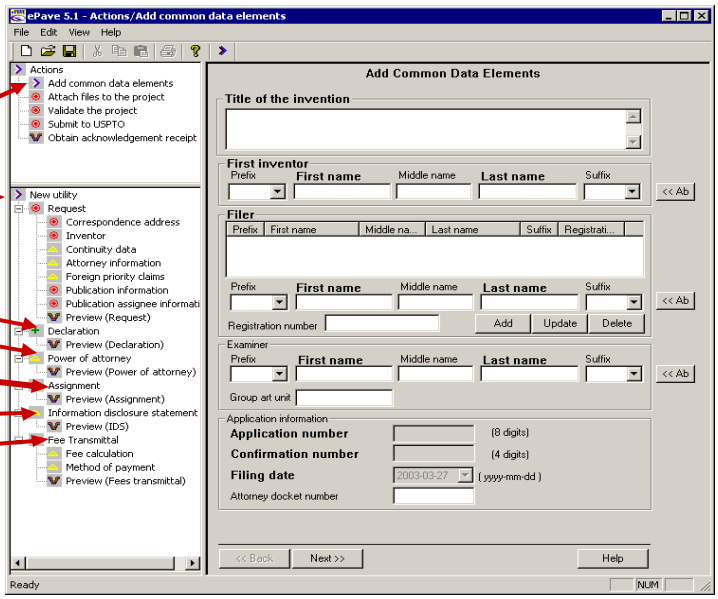
Power of Attorney

Assignment

Information Disclosure Statement

Fee Transmittal

NOTE: User may revisit any section in any sequence and edit any element he/she requires.



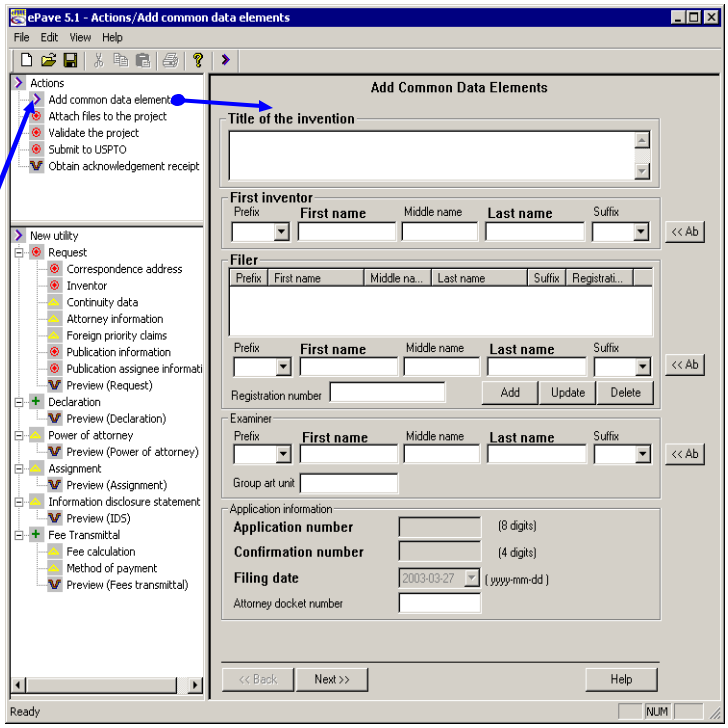
3. Providing Information for the Application Data Sheet

Now the preparation of a submission will progress as follows: add the information about the title of the invention, first named inventor, the filer (usually an attorney or agent) and attorney docket number. If an assignment or an IDS is filed or any submission after the filing of the original application is being prepared, the Application Number, Confirmation Number and the filing date of the application will have to be filled in.

ePAVE will progress in the following sequence:

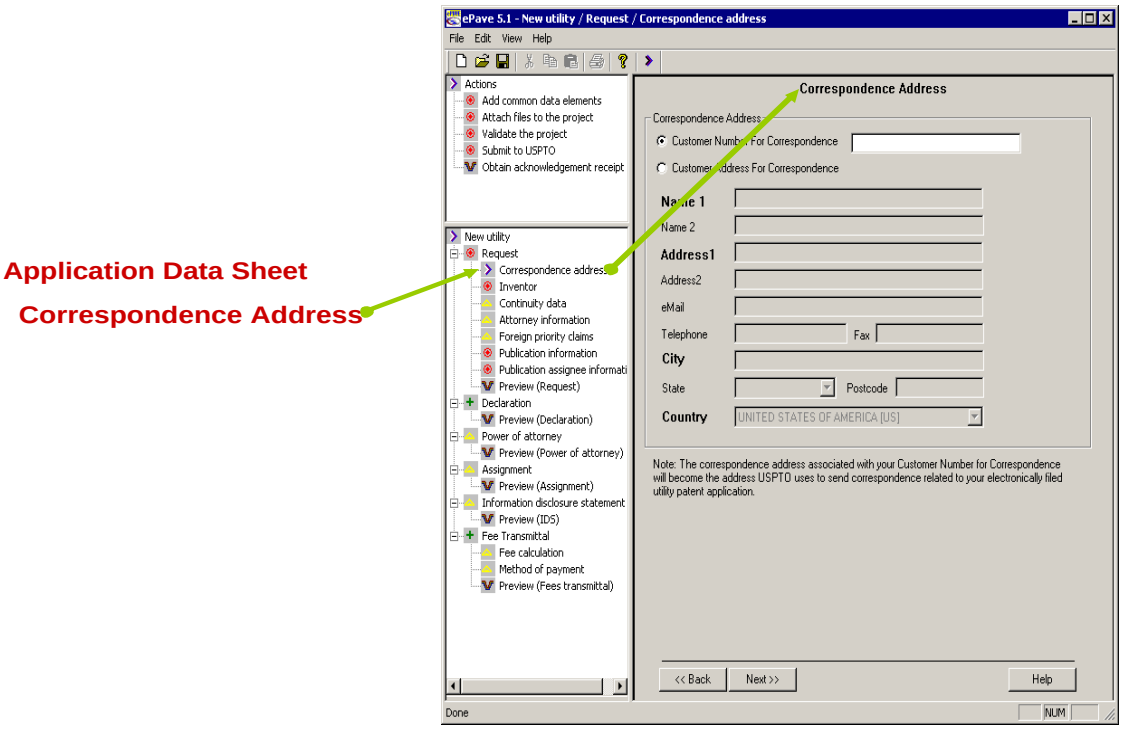
Add common data elements

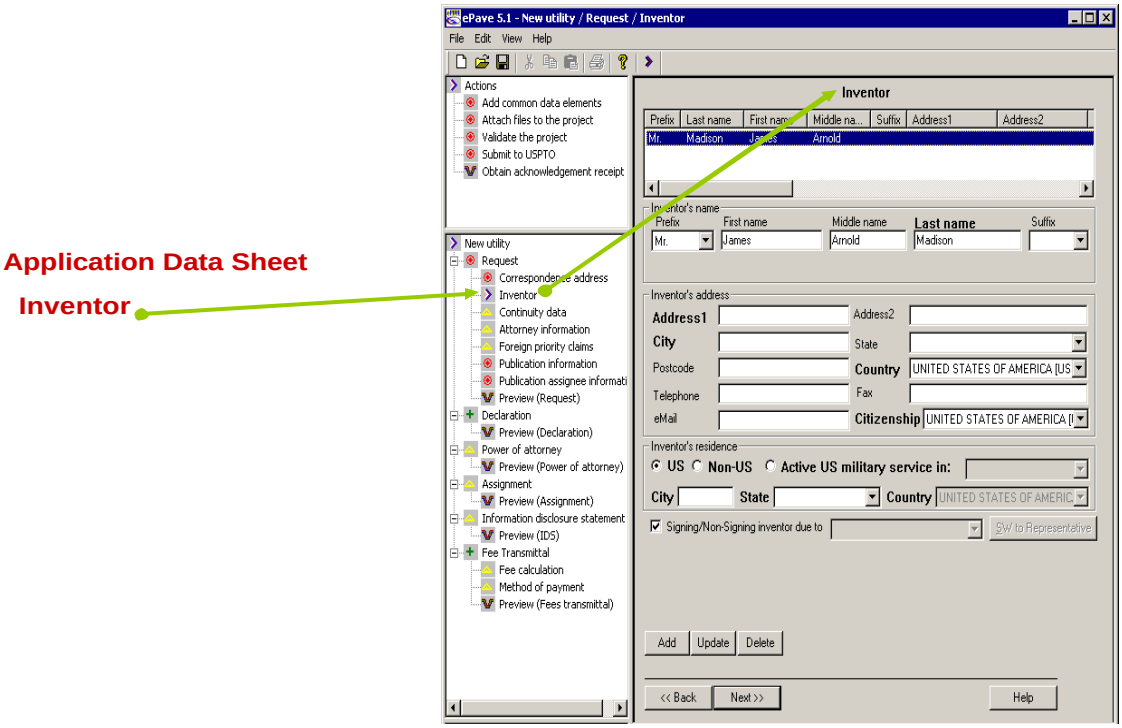
NOTE: User may revisit any section in any sequence and edit any element he/she requires.



The next screen will prompt the user to fill in a correspondence address. The easist way to specify a correspondence address on all e-filed applications is to enter the entity's customer number, which was discussed in detail in the previous section of the material. Similarly, at the Attorney Information screen (shown below), it is better and easier to enter only the customer number of the firm or an organization where the attorney practices. The application (or other submission) will be associated with that customer number and all correspondence related to the application will be mailed to that address. Once a piece of correspondence is received at the firm or organization, a docketing paralegal at the firm will be able to direct it to the responsible attorney. The sequence of the data needed to generate an application data sheet is reproduced

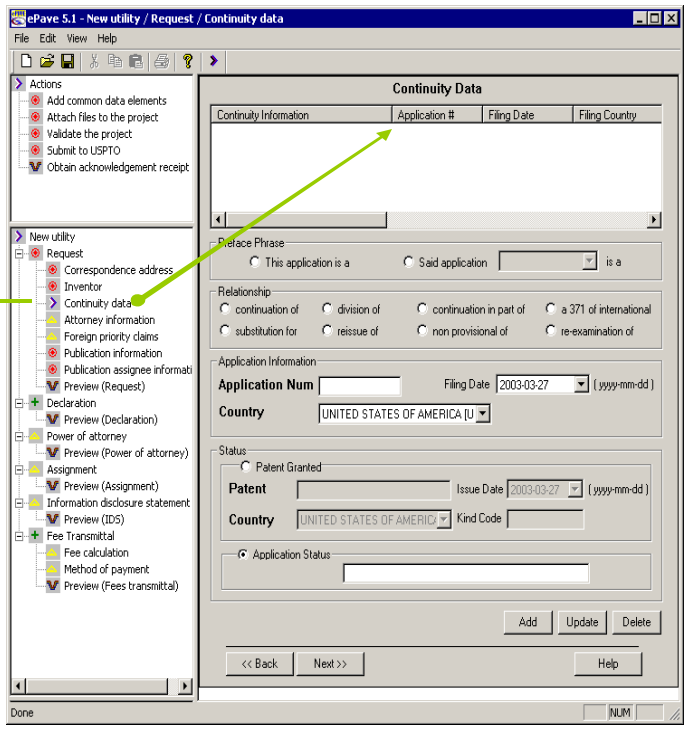
below. Since all the data are entered by the filer, the possibility that the Office of Initial Patent Examination will misspell the relevant application data is virtually eliminated.





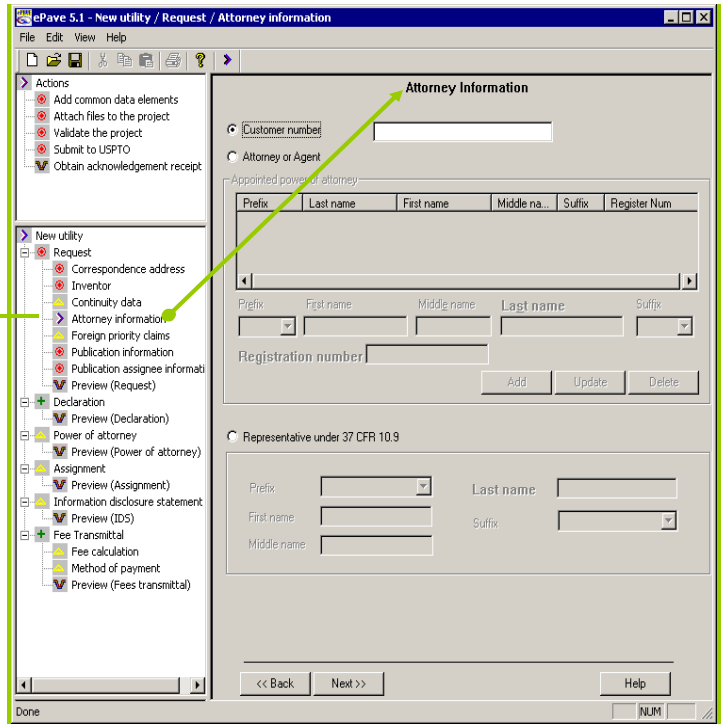
Application Data Sheet

Continuity Data



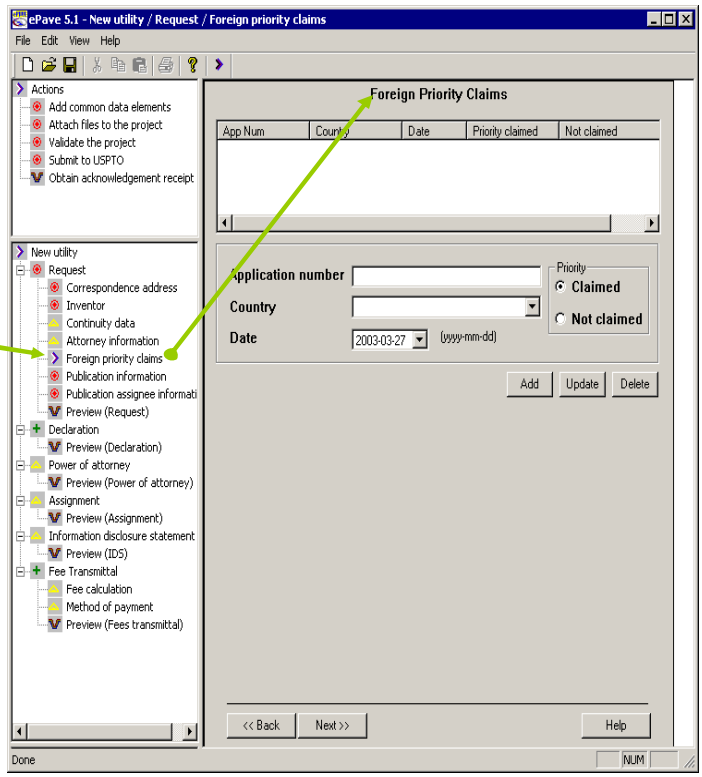
Application Data Sheet

Attorney Information



Application Data Sheet

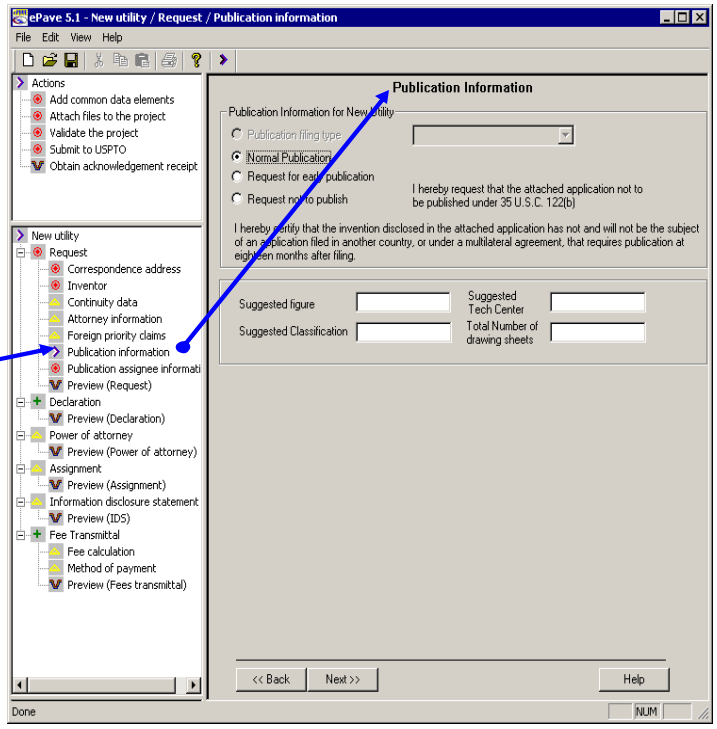
Foreign Priority Claims



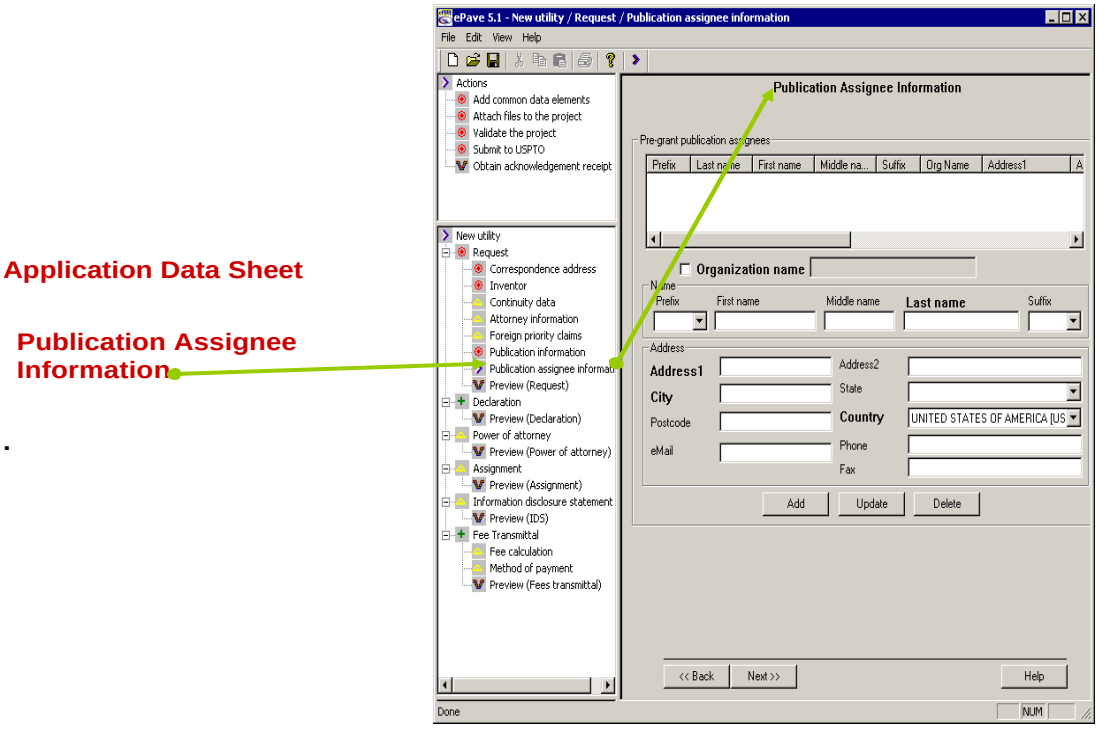
Application Data Sheet

Publication Information

.

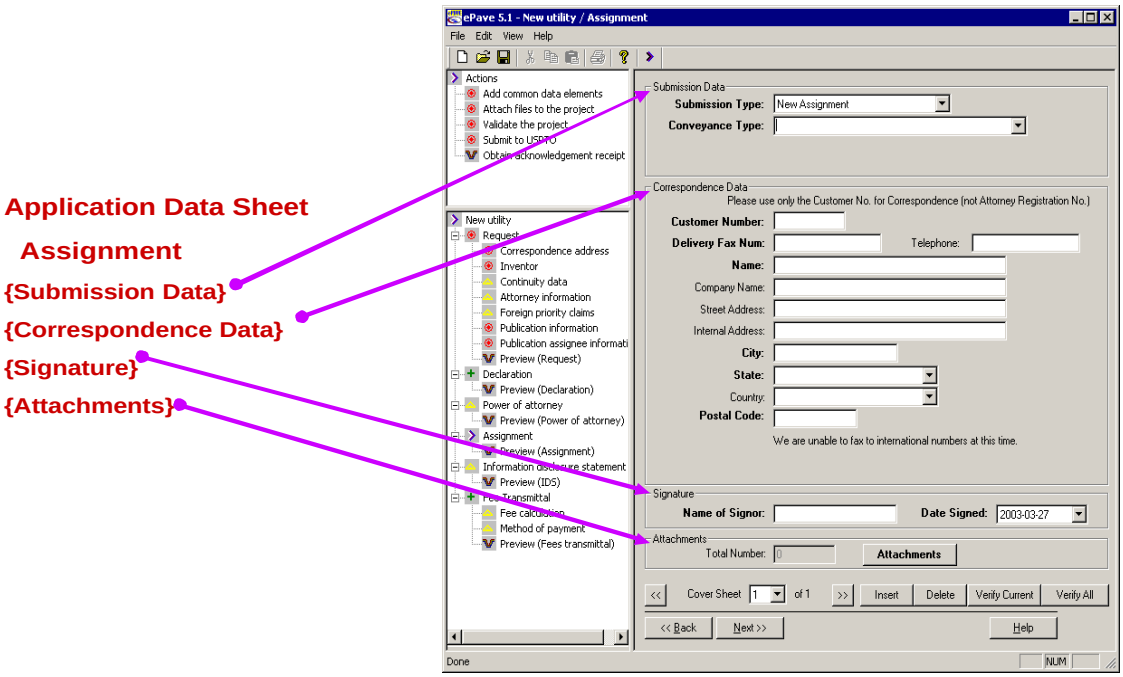


With regard to the assignee information, the executed assignment can be submitted for recordation with the newly e-filed patent application. As a matter of practice, I prefer to submit an assignment for recordation after the filing of the application when I already have its serial number and the confirmation number. Our clients usually authorize us to insert the Serial Number and the filing date into the executed assignment if the assignment is executed before the application filing date. That way the recorded assignment itself has the filing date and the Serial Number on the face of the document, which I think is a better way of recording an assignment. Nevertheless, a filer has an option to submit an assignment for recordation together with the initial electronic submission of the application. In the screen reproduced below, the filer fills in the information about the assignee as it would be published when the application is laid open.



.

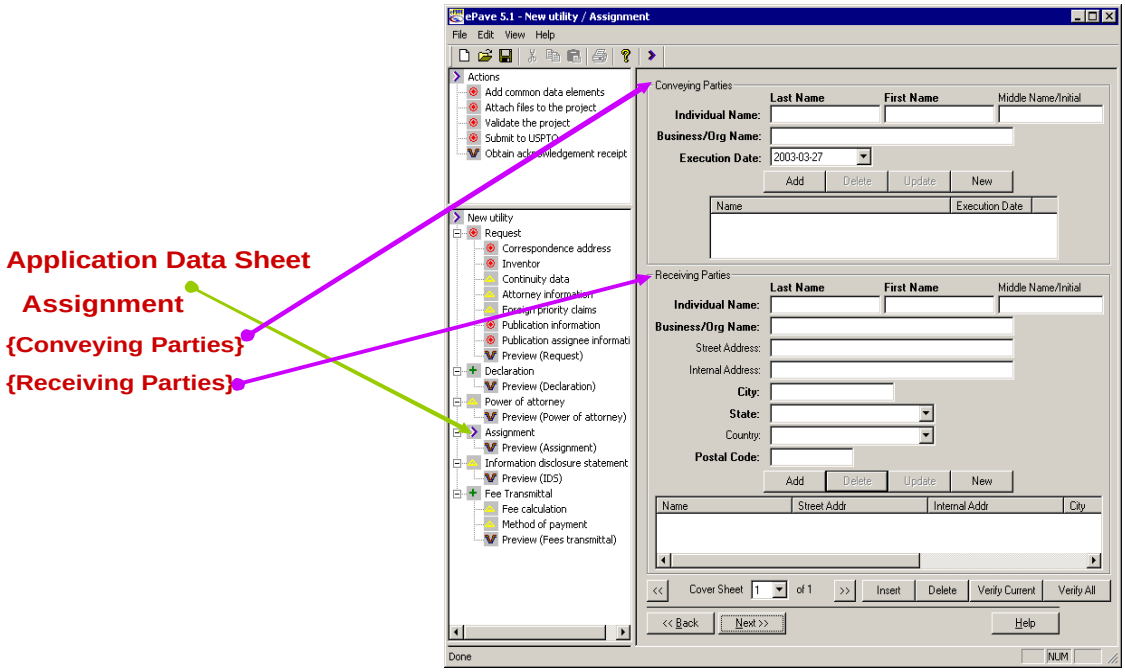
The assignment recordation function is designed as follows:



The Submission Type pull-down menu indicates that a new assignment is being submitted for recordation. The Conveyance Type pull-down menu lists the following types of documents that can be electronically recorded at the PTO:

- Assignment of Assignor's interest
- Mortgage
- Lien
- License
- Security Interest
- Merger
- Option
- Decree of Distribution
- Letters of Testamentary
- Letters of Administration
- Change of Name
- Nunc Pro Tunc Assignment
- Court Appointment
- Release by Secured Party
- Conditional Assignment
- Confirmatory License
- Free form document

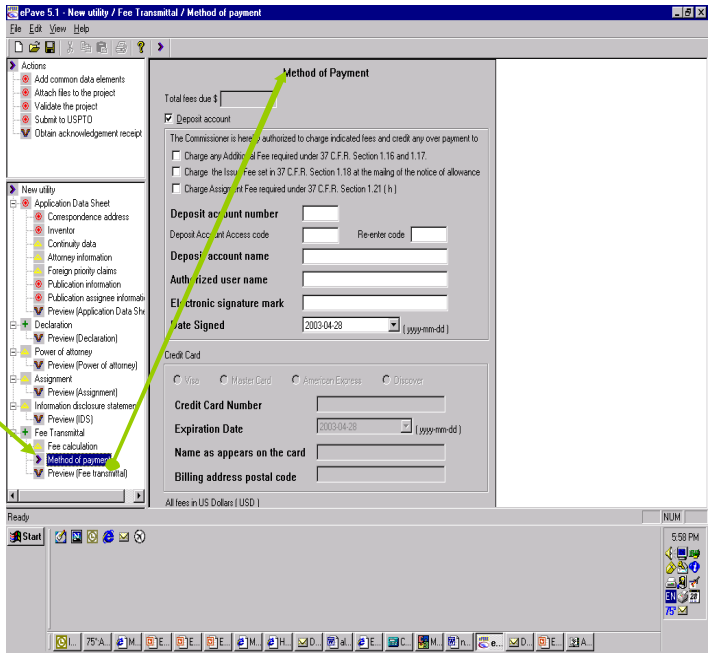
In the Correspondence Data dialog box the filer should enter the entity's customer number, as well as the fax number to which the PTO will fax the recordal sheet with reel/frame number. Receiving electronically recorded assignments by fax is the quickest way to record the assignment. In my experience the recorded assignment information is usually received in our office by fax within 24-48 hours. In the Merger/Acquisition type transactions and related due diligence investigations a quick turnaround in assignment recordation can be a valuable option. In the next screen the information about the conveying party (inventors, businesses) and the receiving party (assignee) is filled in.



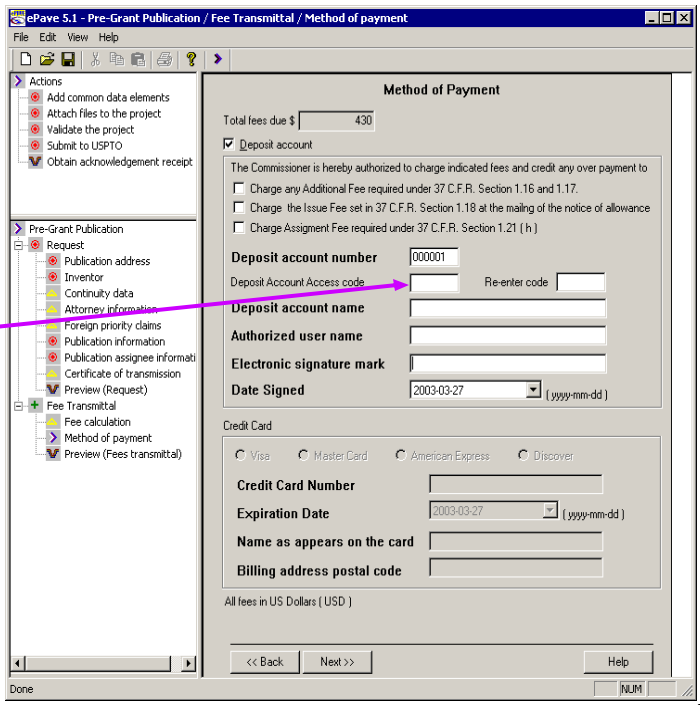
The next screen allows the filer to choose the method of payment of the fees. There are two options available – a charge to the filer's deposit account and a credit card payment. ePAVE 5.1 now provides automated Deposit Account Processing, which was previously available only with the Credit Card payment option. The filer will access the Method of Payment screen by selecting Method of Payment option from the Forms tree. The filer will then select Deposit Account payment option to enter the necessary data.

Application Data Sheet

Method of Payment



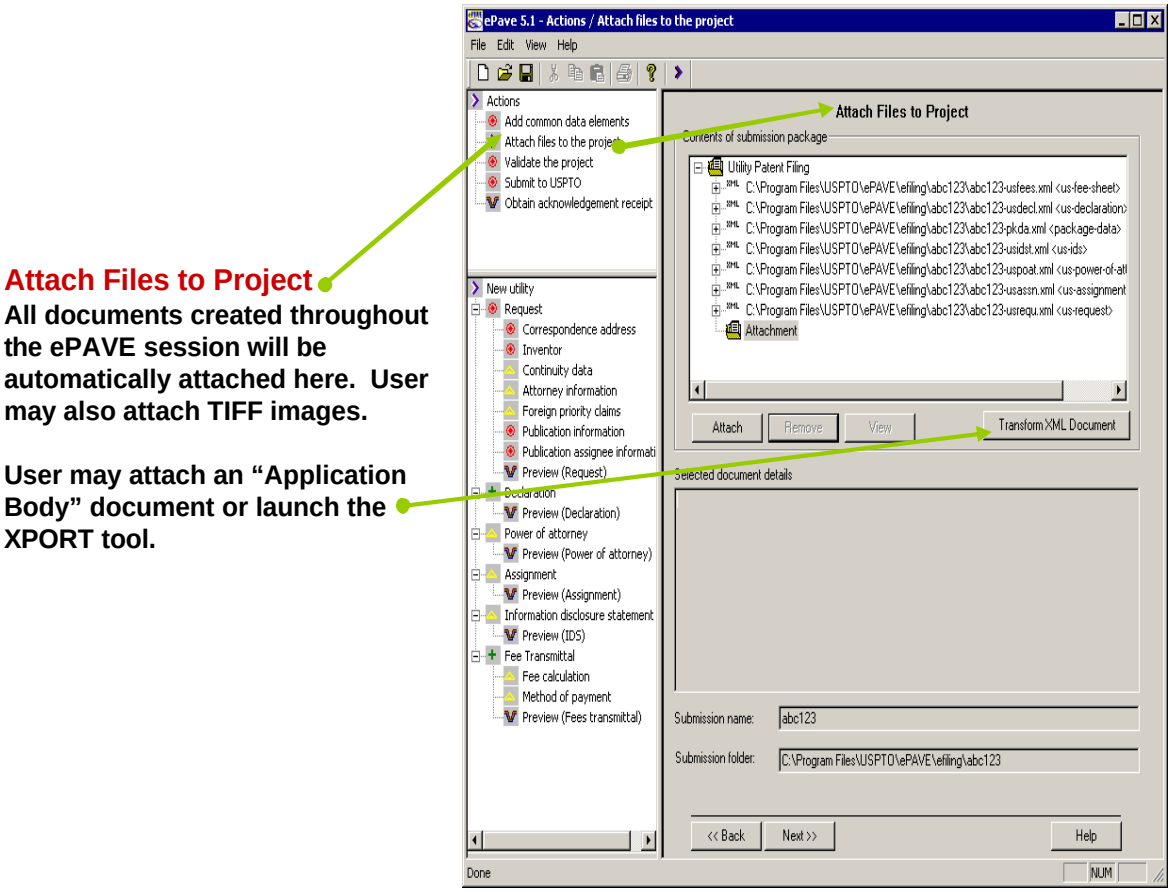
The double-entry of Access Code requirement serves as a "verification" mechanism to ensure that the user has in fact, accurately entered his/her Access Code.



If the

If the Access Code fields are left empty, ePAVE will display an "informational" error message indicating that no Access Code was entered. Nevertheless, Access Code is not a required field, and the submission file is valid without Access Code.

4. Attaching files to the submission



This is the place where the filer will take various documents created before, such as, for example, a specification, declaration, power of attorney, assignment or any other document in the TIFF image format and attach them to the submission. The forms (application data sheet, transmittal, fee calculation sheet) will already be attached to the submission and listed in the top portion of the tree structure, as shown in the screen shot reproduced above. Before attaching the specification in the required XML format, a filer should transform the specification into what is called Annex F compliant XML format. To perform such a transformation, the filer should the Transform XML Document button (the lower arrow in the screen shot above), select the file with the prepared specification and launch the transformation, which will be performed by the XPORT tool reproduced below. The converted specification in the XML format will comply with the submission requirements and can be attached to the filing submission together with the rest of the accompanying documents. If the user attempts to attach a PASAT XML document

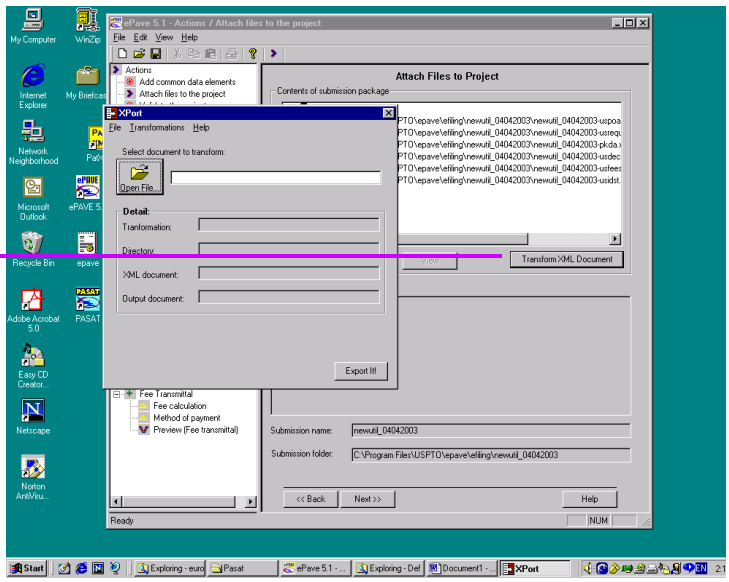
(unconverted output), ePAVE 5.1 will display an error message indicating that the file is not an "application body". To correct this error, a users will then select the Transform XML Document button which will launch XPORT, the new "translation" tool and select the PASAT XML document to be converted.

XPORT Tool

To convert a PASAT XML document into an "application body" document, users will select the Transform XML Document button and launch the XPORT tool to convert the PASAT document.

Translated file will be named:

[user assigned filename]-trans.xml



Once the filer has completed the transformation using the XPORT Tool to translate the PASAT XML Document into an "Application Body", he/she must attach the "Application Body" document to the submission.

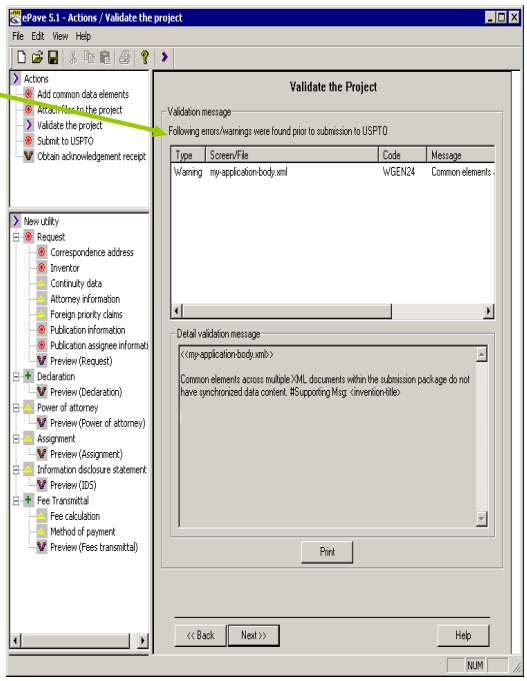
After all the necessary documents have been attached to the submission, the submission should be validated by going to the Validate the Project Screen. The validation process will check the whole submission for compliance with various e-filing requirements (for example, if the TIFF images happened to be non-compliant, the validation process will return an error). Errors in the submission are not overridable and must be corrected before the electronic submission can be sent to the PTO. Warning messages should also be corrected before the submission, but are overridable in the case of new utility and provisional patent filings. Informative messages returned by the validation process dot not have to be corrected, they do not impede the submission, but are given to help the filer.

ePAVE Validation: ③ Message Types

(1) ERROR
Must be corrected for submission to take place.
(NOT OVERRIDABLE)

(2) WARNING
Should be corrected prior to submission.
(Only OVERRIDABLE for New Utility & Provisional)

(3) INFORMATION
Informative message to guide the user in creating the most ideal submission. Does not impede submission.
(OVERRIDABLE in all cases)



5. File the assembled submission with the PTO

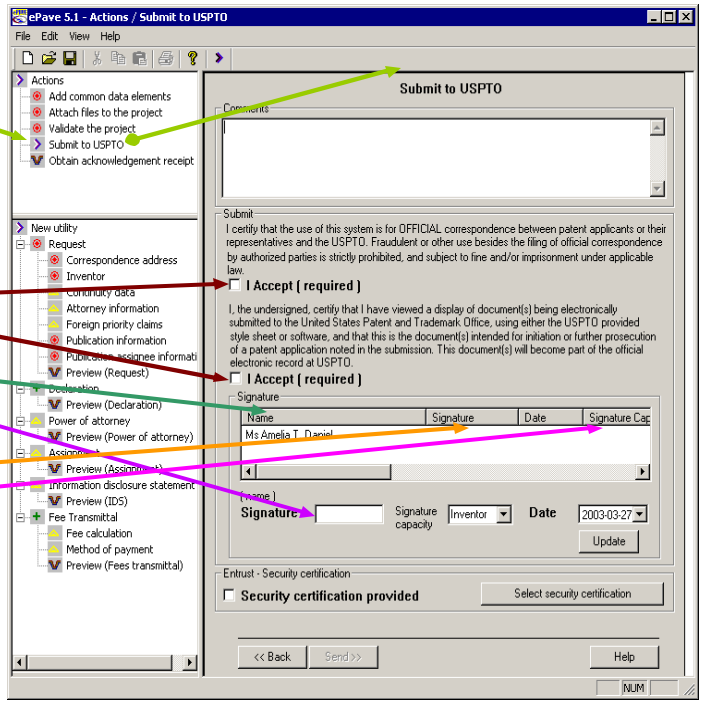
Submit to USPTO

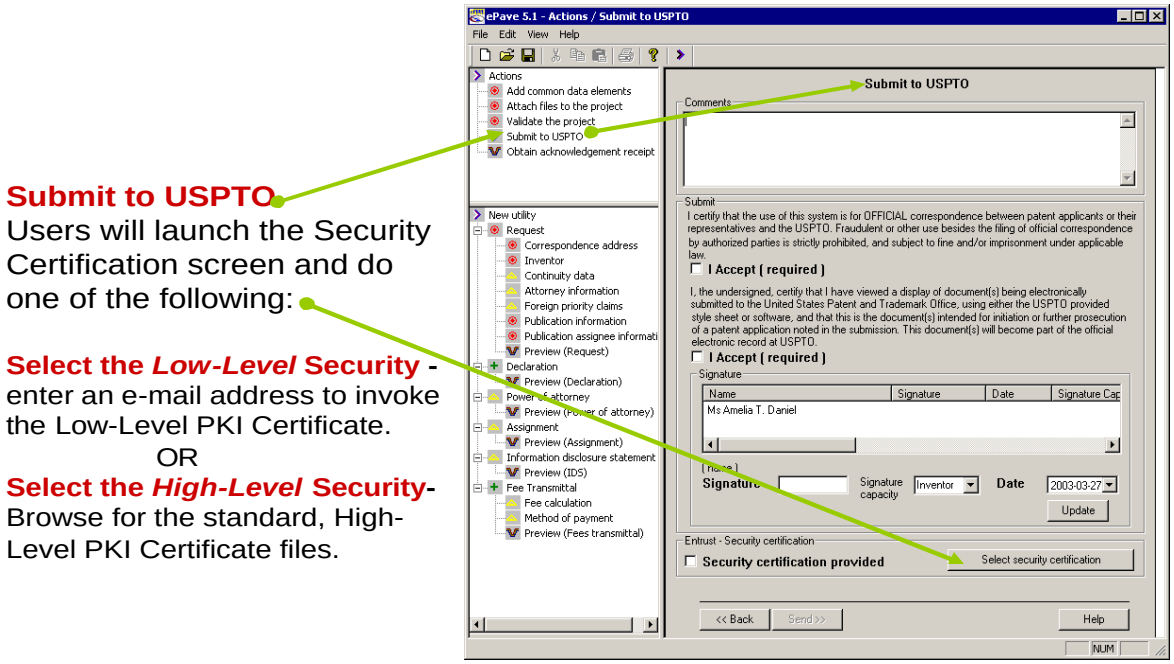
The PKI Holder whose PKI is being used to submit the application will certify to the statements on this screen by selecting the boxes

User will select the name from the signature box and provide an electronic signature format:
/first name space last name/

Designate Signature Capacity.

Provide Date on which signature was provided.





To send the submission, the filer will launch the Security Certification screen and type in the filer's password for his or her PKI certificate. After returning to the Submit to the USPTO screen, the filer will see that the Security Certification Provided indicator will have a ✓ inside the box. The filer will then click on the Send button which will be highlighted at the completion of the submission process.

6. Obtaining Electronic Acknowledgement Receipt

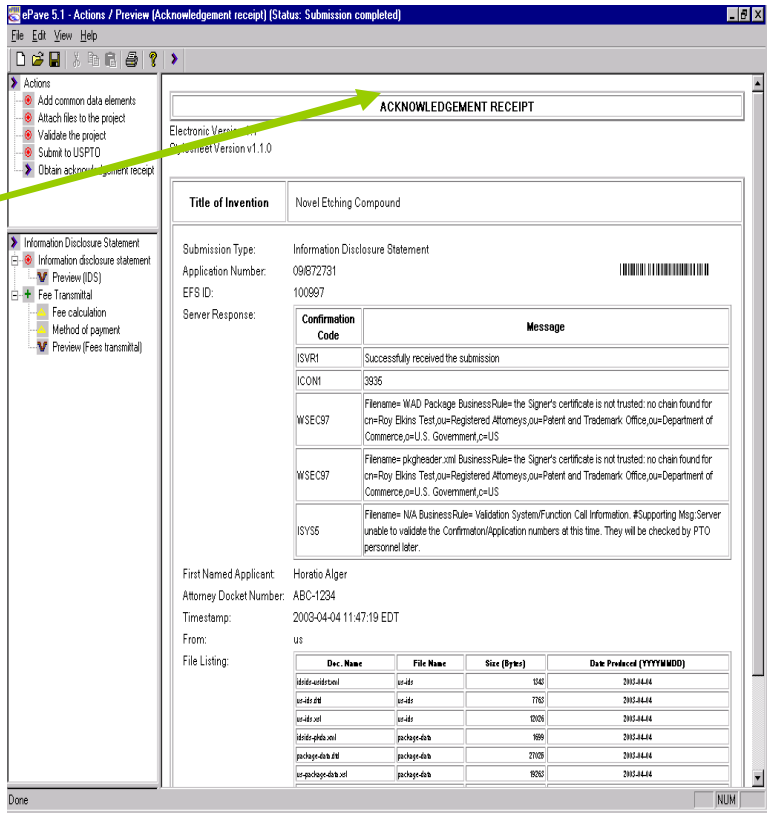
After an electronically assembled submission has been successfully sent to the PTO, the filer will receive what is called an Electronic Acknowledgment Receipt. The Acknowledgment Receipt contains a Serial Number assigned to the newly filed application as well as its confirmation number. The confirmation number is necessary for electronically submitting all subsequent filing such as, for example, an IDS and assignment. The Acknowledgment Receipt also lists all the files and their sizes transmitted to the PTO with the submission and contains a time stamp of the date and time when the application was received by the PTO. The date on the time stamp is the filing date of the application, provided that all the requirements for obtaining a filing date

were complied with. Keep in mind that when an application is filed electronically, the date and time of the filing is stamped as in the Eastern Time Zone in Virginia, which means that an e-filer in California will need to submit the application electronically to the PTO before 9 pm Pacific Standard Time. A screen shot of an Acknowledgment Receipt is reproduced below. The Electronic Acknowledgement Receipt will now be returned as an XML document.

Obtain electronic receipt

An Electronic Acknowledgement Receipt will display on the screen.

Users can also obtain an XML version of this receipt…

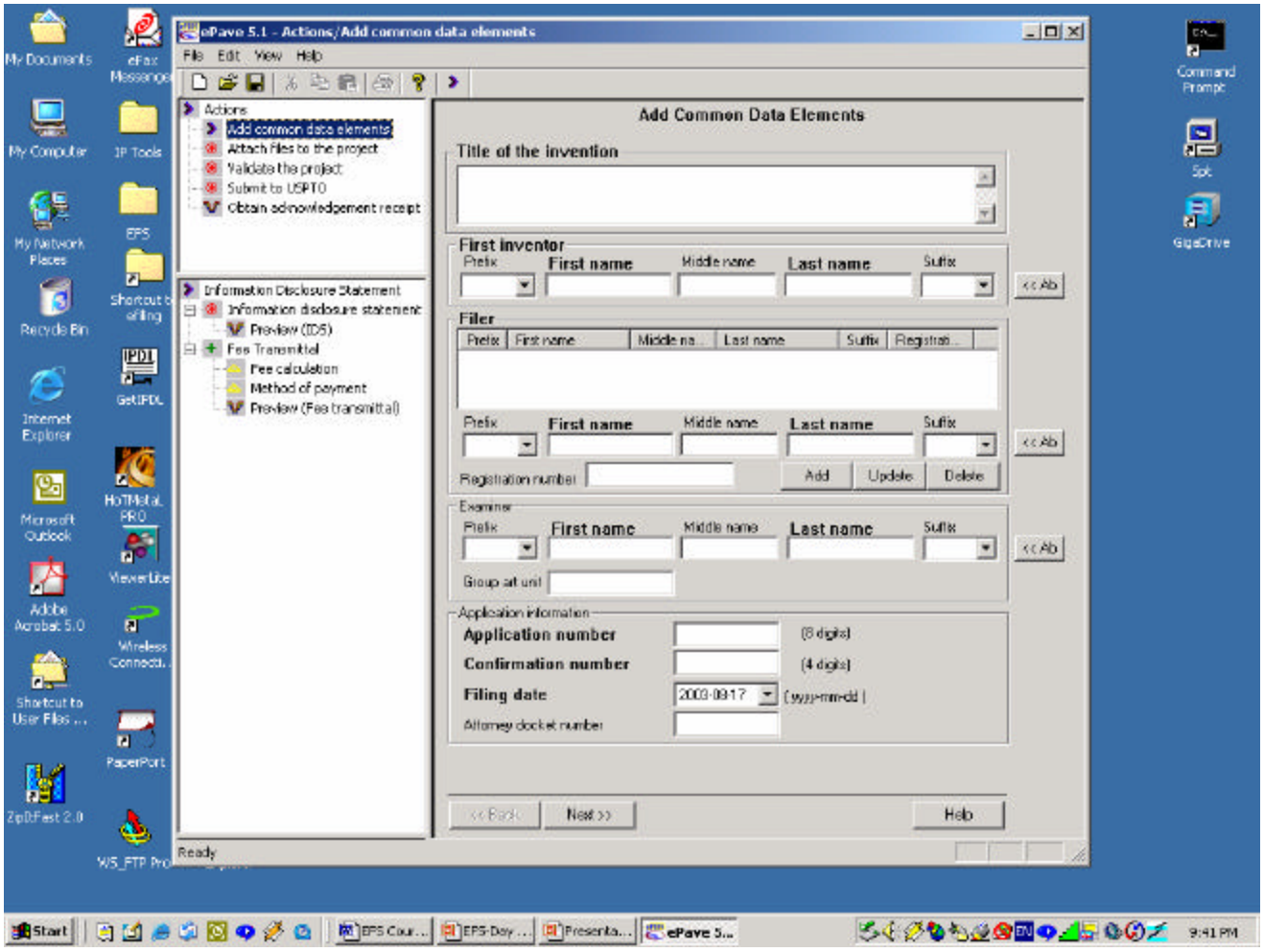


7. Electronic IDS submission

As of this day, only US patents and US published patent applications can be submitted with an electronic IDS via ePave. If the list of references includes non-US patent references or journal articles, it is possible to file US patent references via an electronic IDS and send the non-US patent references and journal articles in the traditional paper form with PTO-1440. If a fee is due with an IDS, then the US patents

references can be filed electronically with the appropriate fee due, and the non-US references or journal articles should be filed as a paper IDS the same day and contain a certification that the paper IDS is filed the same day and that the fee is being paid with the electronic submission. That way the fee will be paid only once. If a filer files a paper IDS and an electronic IDS on different days, then the fee will be due with each of the IDSes. Therefore, when a fee is due with an IDS, and a portion of that IDS is filed electronically, it is advisable to file both the electronic and paper portions of the IDS the same day with the proper certification to avoid paying the fee sue with the IDS twice.

In the electronic IDS part of ePave the initial screen looks similar to the Common Data Elements screen for the utility or provisional application filing.



1

EFS – PASAT Component

PASAT

Patent Application Specification Authoring Tool

123

PASAT – Initial Creation Step

Create specification content text using a

Microsoft word-processing tool, for example:

- **Microsoft WORD**
- **Microsoft WORDPAD**

Key concepts to in creating specification content text:

- Document should be created with one of these three fonts: **Arial**, **CG Times**, or **Times New Roman**
- Document should **NOT contain any BOLD characters**.
- Document should **NOT contain any control characters**.
- Document should **NOT be created using any macros**.

Specific "patenting" related questions about specification content Text should be directed to the Patent Assistance Center (PAC)

Telephone Numbers: **800-PTO-9199 (800-786-9199) or 703-308-HELP (703-308-4357)**

Hours of Operation: **Monday - Friday 8:30 AM - 5:00 PM (Eastern Time Zone)**

124

PASAT – Basic Steps

Basic steps to create a new specification with PASAT:

- Select specification sections for inclusion
- Type content or copy text from a source document
- Insert links to TIFF image files
- Validate specification against patent business rules
- View in browser
- Export XML file

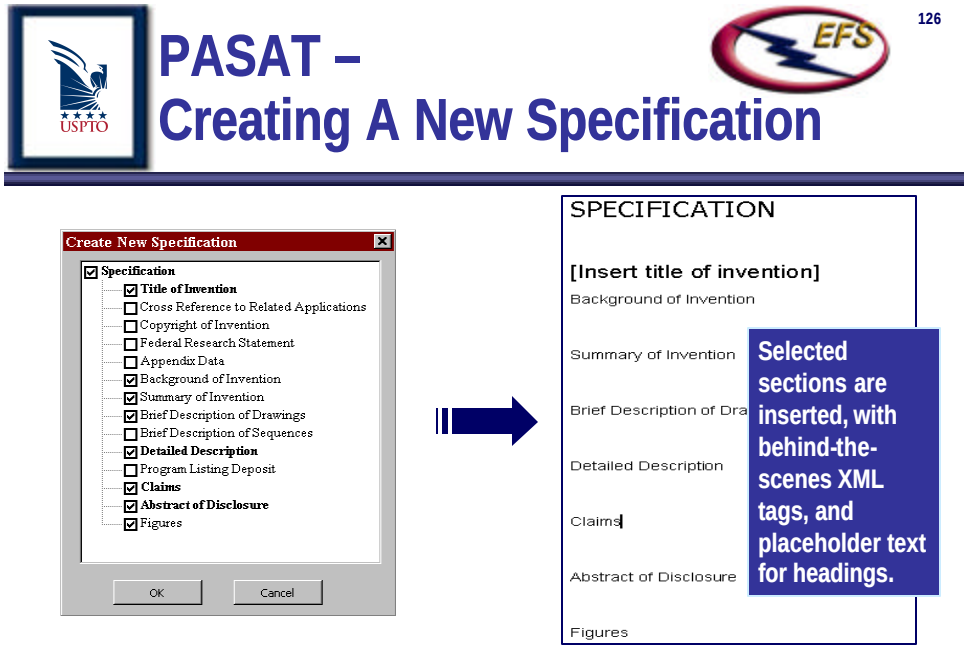
125

PASAT – Primary Functions

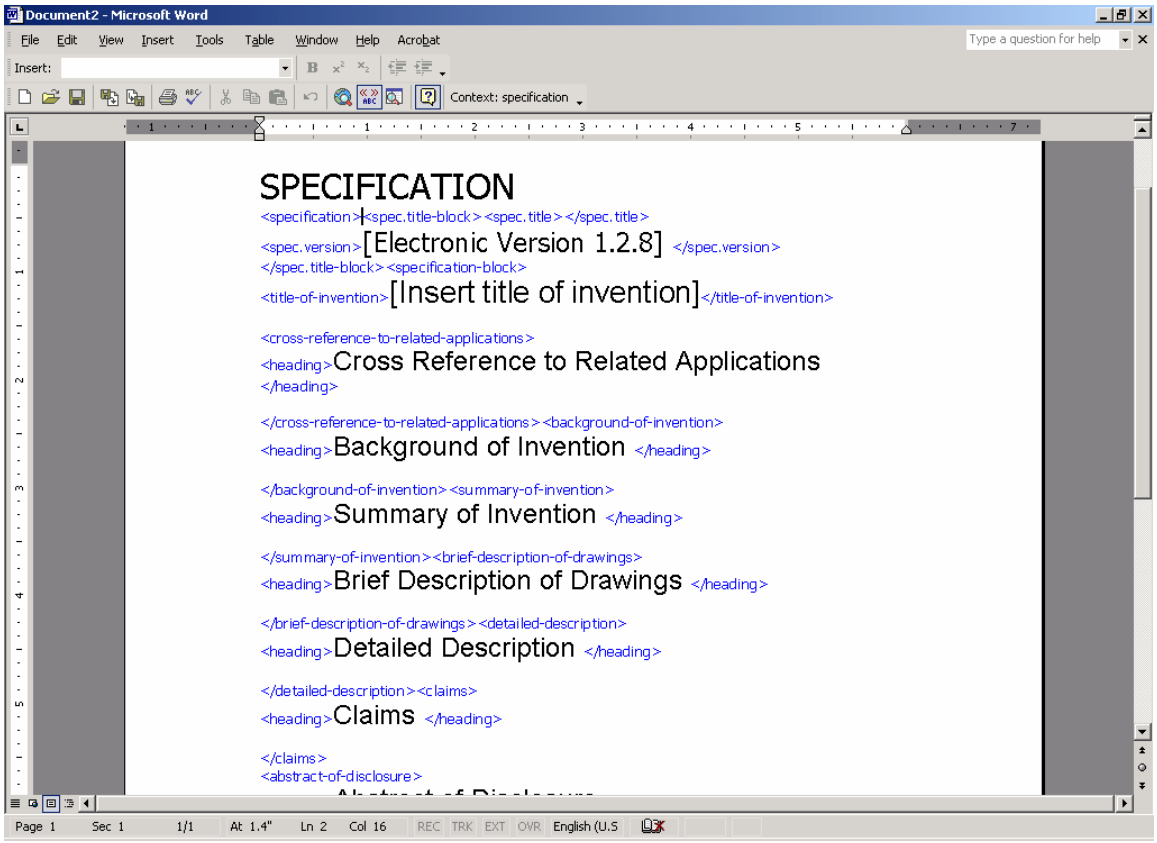
The primary functions available in PASAT are:

- Create New Specification
- Customized Office Assistant
- Paste Paragraphs
- Paste Claims
- Figure Manager
- Validate Document
- Preview Specification in Browser
- Export XML file

To start, click on the PASAT icon, open it, and you will see a special PASAT toolbar. Choose “New Specification”, and you will be given a choice of various sections of an application.



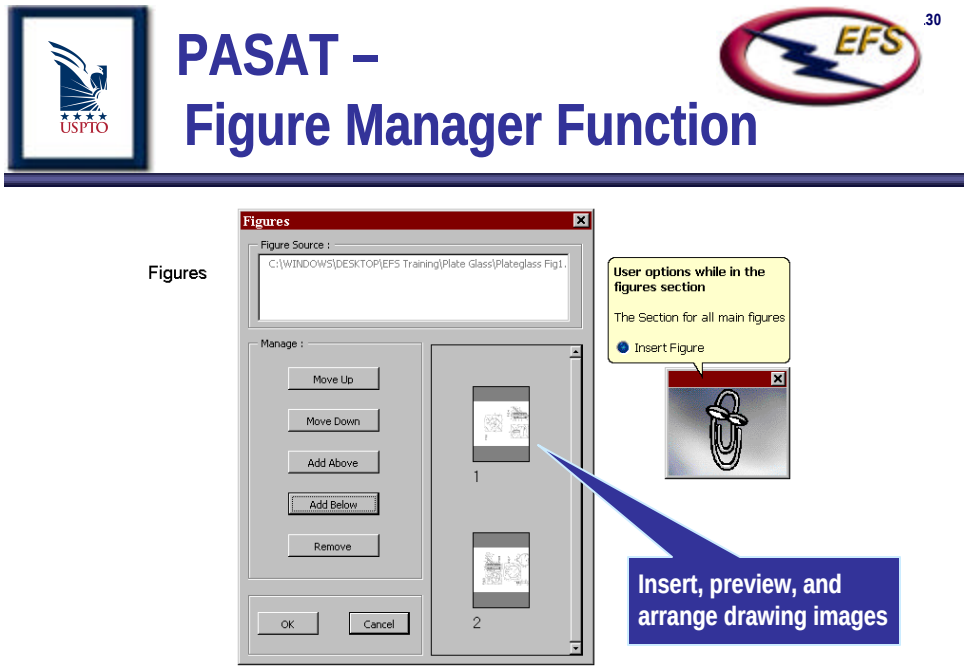
Always have the tags “on” to make sure the correct text gets pasted inside the correct tags.



Now cut and paste from the application prepared in MS Word into the PASAT template. It is important to make sure that you paste the sections after the </heading> tag of each section, or after the </paragraph> tag if you are pasting the next paragraph. Once the tags become inconsistent, or text gets pasted into the incorrect places, the specification can’t be completed and it is often necessary to start the authoring process anew.

There are some difficult and inconvenient things about PASAT. First of all, as of today, it doesn’t accept equations or chemical formulae by the “cut and paste” technique, which can make the process of authoring an application quite time consuming. To insert an equation or a chemical formula into a PASAT application, one has to prepare a TIFF image of that formula or equation and paste an image into the specification. Needless to say that when an application contains more than 20 equations or formulae, the time needed to prepare a PASAT specification becomes unjustifiable.

Once the specification is assembled, a Figure Manager from the Insert pull-down menu should be used to insert drawings:



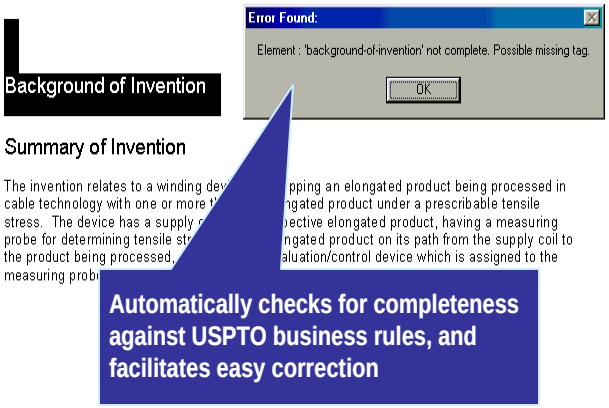
The Patent Office has issued some recommendations on how to prepare TIFF images of the drawings. The drawings have to be in Black-and-White, 300x300 dpi, Group 4 compression or no compression, Letter size. The best and easiest way to create such drawings from an image file in any format is to use Informatik Tiff Driver. Go to http://www.informatik.com/tiffwork.html and get a TIFF printer driver. That driver will take images in any format and in one click generate one-page TIFF images in the exact format required by the Patent Office. You can sequentially name the TIFF files, which is convenient for further e-filing. The same TIFF driver should be used for preparing TIFF images of assignments, declarations or any other documents that can be filed electronically with the PTO. Any kind of tedious formatting is eliminated by that TIFF driver, which saves time and effort in preparing an electronic submission.

Once the required TIFF images are prepared, the images can be inserted into a PASAT application with the help of Figure Manager.

Once the application is created in PASAT, it should be validated via a Validate function from the Tools pull-down menu.

131

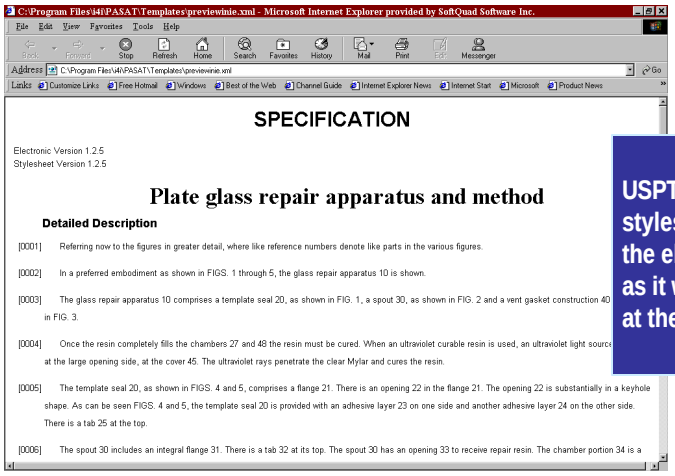
PASAT – Validate Function



Automatically checks for completeness against USPTO business rules, and facilitates easy correction

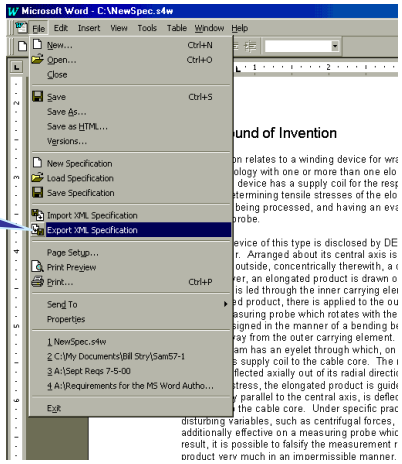
132

PASAT – Preview Specification in Browser



USPTO standard stylesheet displays the electronic file as it will be seen at the USPTO

PASAT –
Export To XML Function



Automatically converts specification to EFS required electronic XML format.

Patent Application Information Retrieval (PAIR)

PAIR provides direct on-line access to application status and prosecution history. Access to PAIR is web-based and is available 24 hours a day-7 days a week.

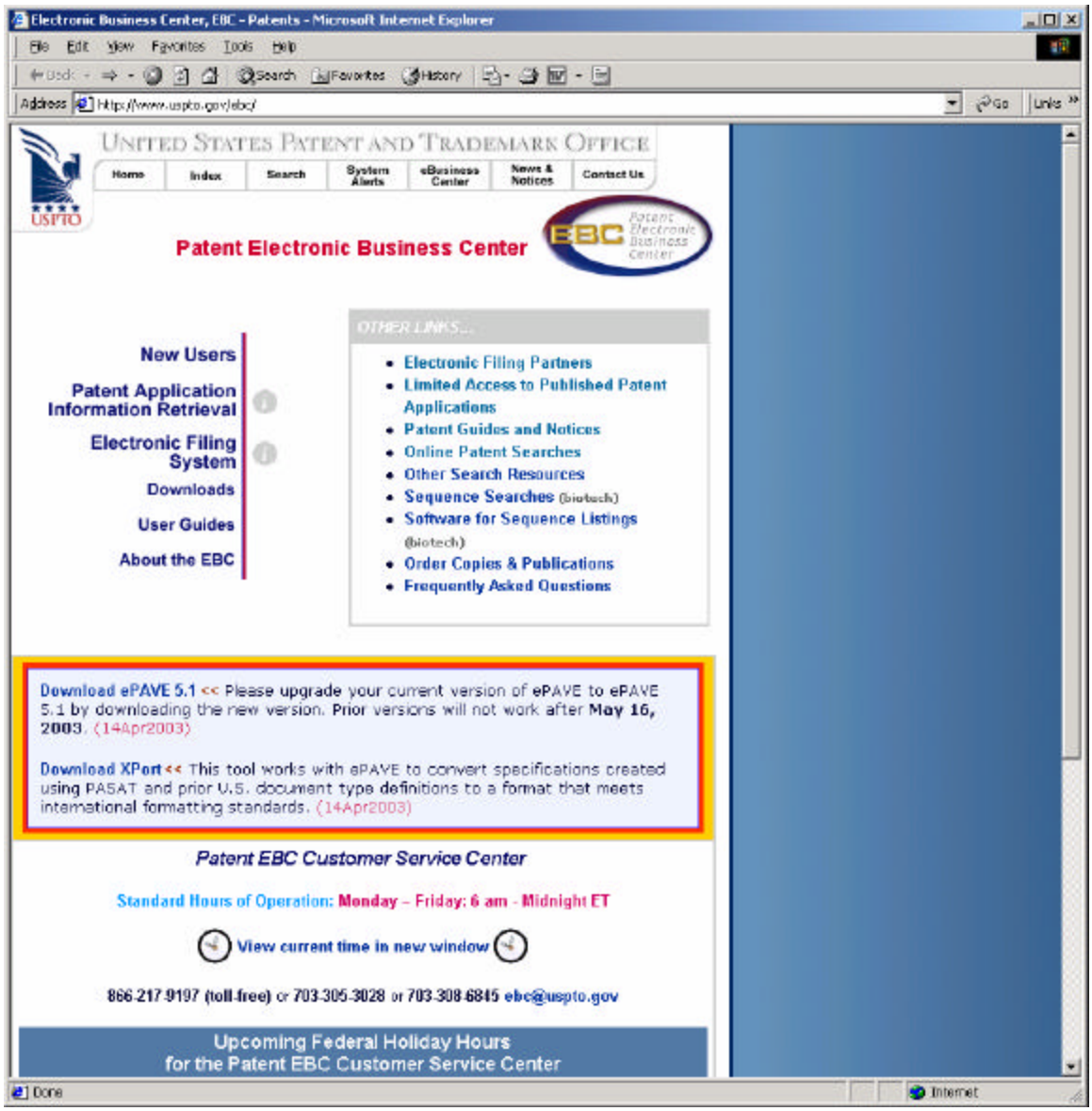
PUBLIC PAIR:

- Requires no PKI software
- Review Patented & Published Application Information
- Prosecution History
- Status and Location

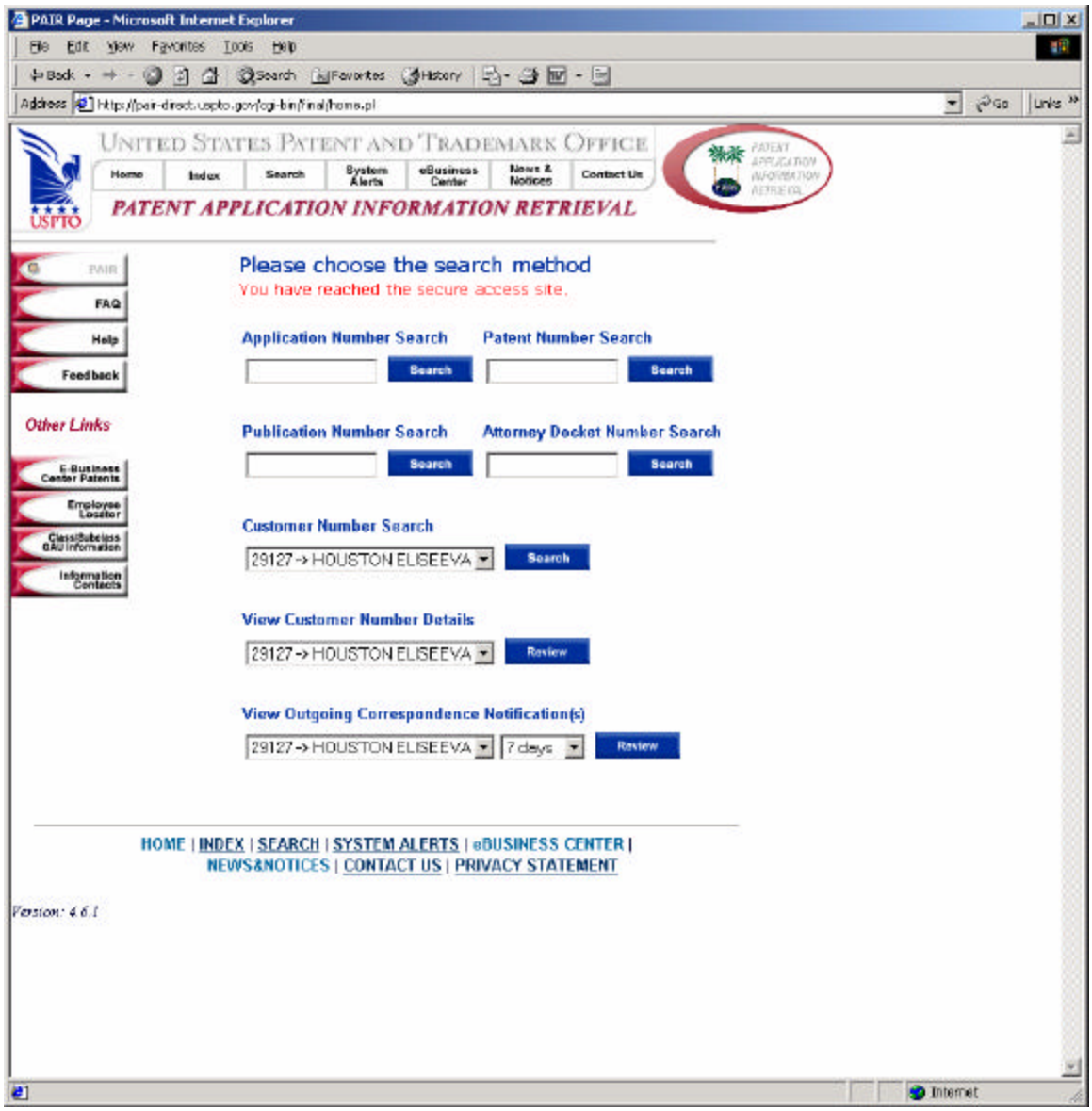
PRIVATE PAIR:

- Requires High-Level PKI Certificate
- Requires Customer Number
- Review Pending & Patented Application Information:
    - Prosecution History
    - Status and Location
    - Limited Bibliographic Data
    - Current Details About Customer #
    - Paper File Folder Image Files

After logging in with the user's PKI certificate, the user will be prompted to the private side of the Patent Electronic Business Center. Click on "Patent Application Information Retrieval".



Now you are accessing the private part of PAIR (associated with your customer number):

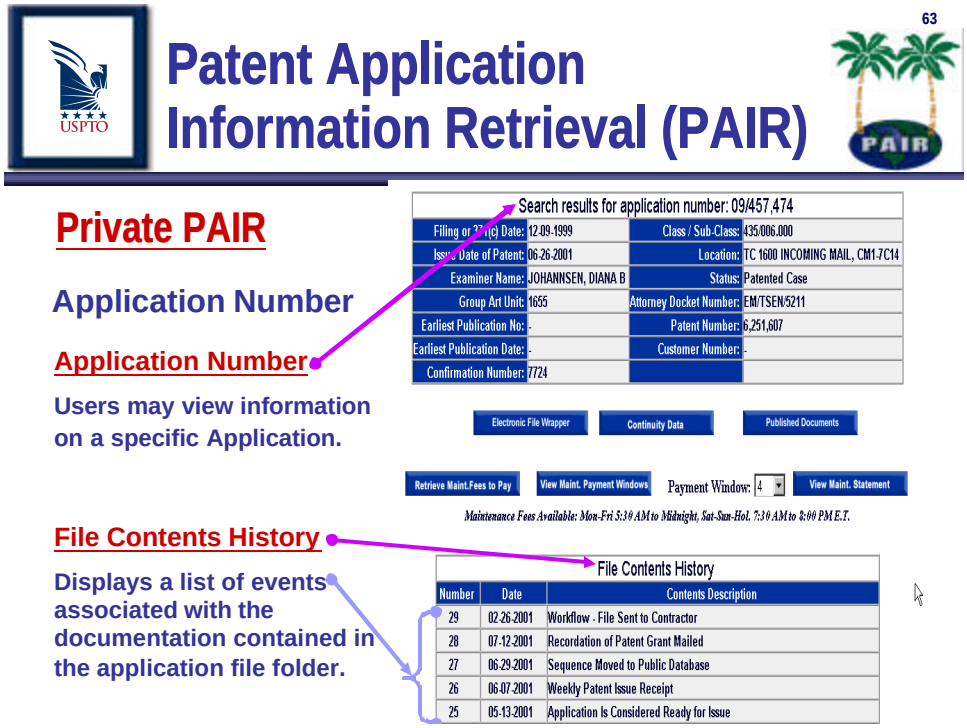


Searching under the “CUSTOMER NUMBER SEARCH” will display all issued patents and pending applications, both provisional and non-provisional”, associated with that customer number.

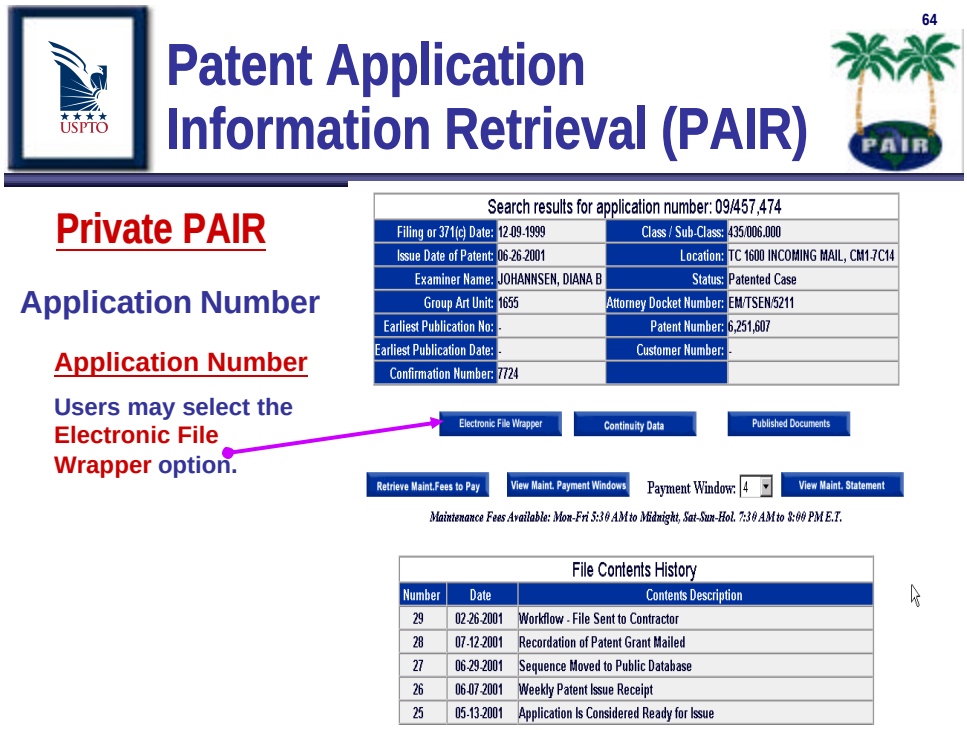
Searching under the “CUSTOMER NUMBER DETAILS” displays the names of every practitioner associated with that customer number. It is useful to review the list of practitioners to see who is associated with the customer number and remove the practitioners who are no longer associated with the firm and corporation with that customer number.

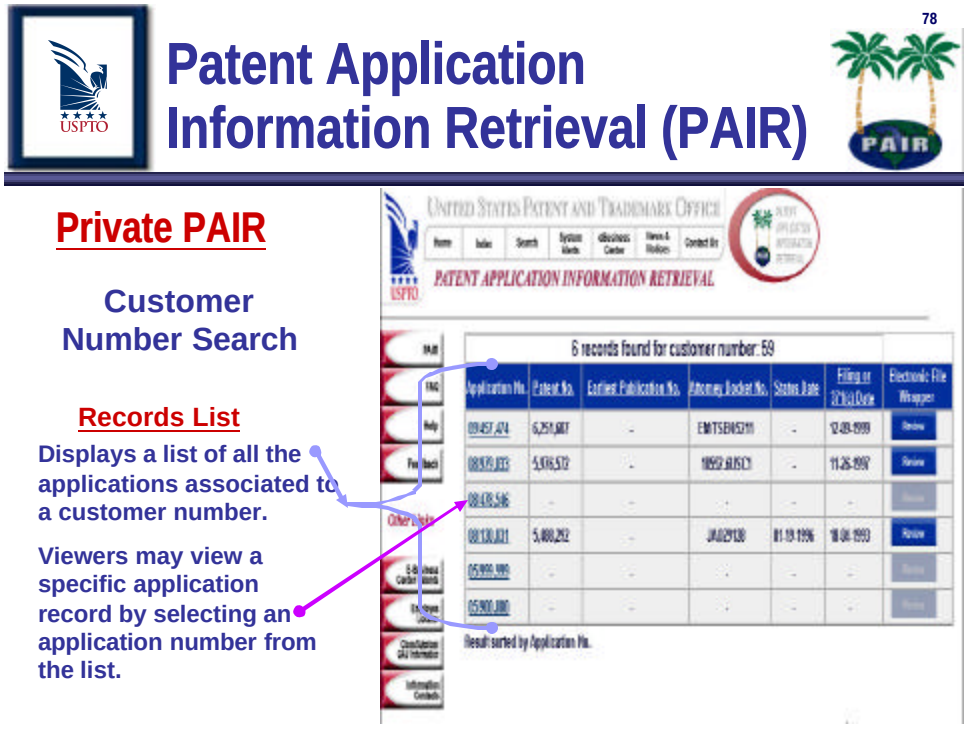
Searching under the "REVIEW OF OUTGOING CORRESPONDENCE NOTIFICATIONS" is a very useful feature. A user can select the number of days, and the search will display the correspondence mailed by the PTO to that customer number.

A useful function of PAIR is the ability to view the file history, continuity data and patent term adjustment data for a particular serial number.



For applications filed after June 30, 2003, all the documents in the file are scanned in and an attorney can view the content of the file wrapper online. The file wrapper can be accessed either from the list of all applications associated with that customer number or from the content of the file wrapper displayed for a particular customer number.





Electronic File Wrapper looks like this:

65

Patent Application Information Retrieval (PAIR)

Private PAIR

Application Number Search

Electronic File Wrapper (EFW)

Displays a list of all the image files contained in the file folder for a specific application.

Viewers may select a specific image file to view.

Electronic File Wrapper for Application No.: 09/457,474

Mail Room Date	Document Description	Page Count	All	Mime	Download
04/25/2001	Transmittal to OIPE	1			
01/22/2001	Examiner Search Notes	1			
01/21/2001	Examiner Search Notes	25			
02/06/2001	Notice of Allowance	6			
12/28/2000	Applicant Arguments or Remarks Made in an Amendment	5			
12/28/2000	Claim	2			
12/28/2000	Amendment	1			
09/18/2000	Examiner Search Notes	2			
08/14/2000	Examiner Search Notes	3			
07/11/2000	Sequence List	3			
07/11/2000	CRF Statement received from Applicant - Paper and CRF are the same	2			
07/11/2000	Amendment	3			
07/11/2000	Extension of time from Applicant - filed as separte letter	2			
04/11/2000	CRF Sequence Listing Filed	3			
04/11/2000	List of references cited by Examiner	1			

66

Patent Application Information Retrieval (PAIR)

Private PAIR

NOTE: **OIPE =** *Office of Initial Patent Examination*

Application Number Search

Transmittal to OIPE image file.

Users may navigate through multiple pages, if necessary.

Users may view an electronic image of the document.

Transmittal to OIPE : 1 Page(s).

Application No.: 09/457,474

Mail Room Date	Document Description	Page Count
04/25/2001	Transmittal to OIPE	1
01/22/2001	Examiner Search Notes	1
01/21/2001	Examiner Search Notes	25
02/06/2001	Notice of Allowance	6
12/28/2000	Amendment	1
12/28/2000	Claim	2
12/28/2000	Applicant Arguments or Remarks Made in an Amendment	5
09/18/2000	Examiner Search Notes	2
08/14/2000	Examiner Search Notes	3
07/11/2000	CRF Statement received from Applicant - Paper and CRF are the same	2
07/11/2000	Extension of time from Applicant - filed as separte letter	2

68

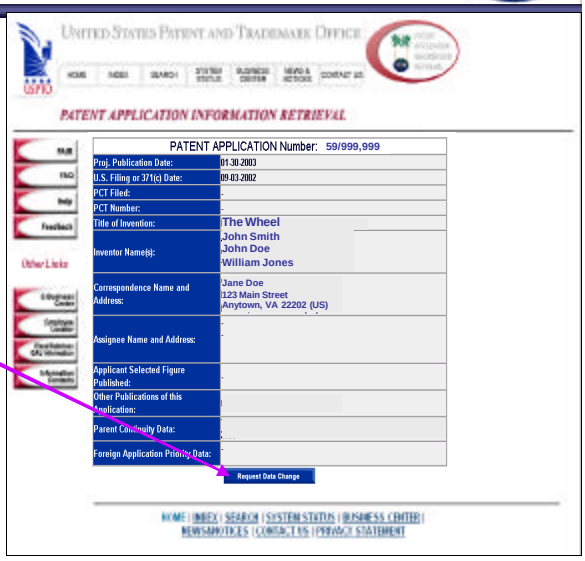
Patent Application Information Retrieval (PAIR)

Private PAIR

PG-Pub Bibliographic Data Review Screen

Application Number

Users may select **Request Data Change** button to request minor, cosmetic changes to the bibliographic data for Pre-Grant Publication.



69

Patent Application Information Retrieval (PAIR)

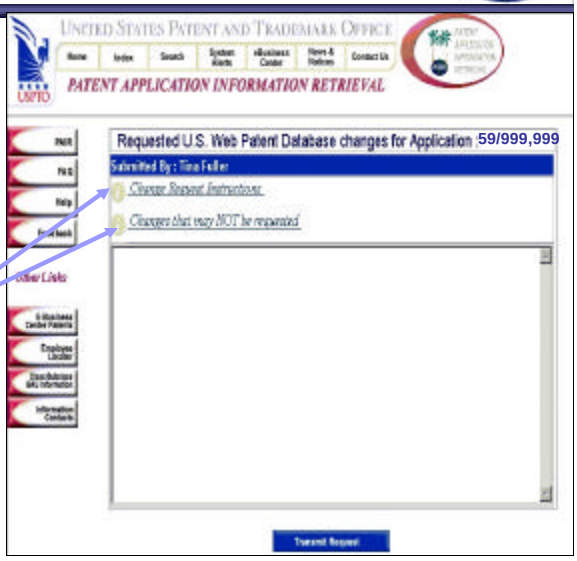
Private PAIR

PG-Pub Bibliographic Data Change Screen

Information Guidelines

Data Change Requests

Users are advised to review the **Information Guidelines** for change requests prior to entering any data change requests.



70

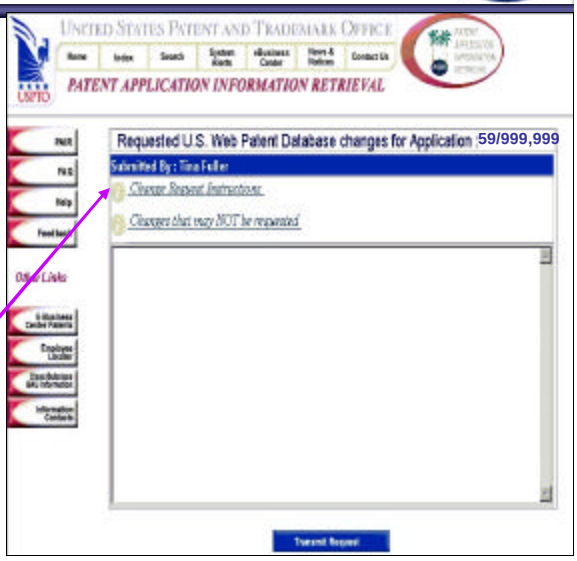
Patent Application Information Retrieval (PAIR)

Private PAIR

PG-Pub Bibliographic Data Change Screen
Information Guidelines

Acceptable Change Requests

Users may access guidelines on the data changes which may be requested using this mechanism by selecting the information link – Change Request Instructions.



71

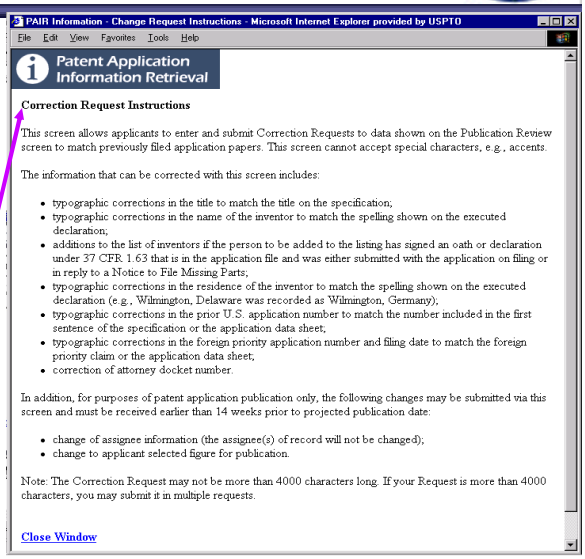
Patent Application Information Retrieval (PAIR)

Private PAIR

PG-Pub Bibliographic Data Change Screen
Information Guidelines

Correction Request Instructions Information Link

Please refer to handout.



PAIR Information - Change Request Instructions - Microsoft Internet Explorer provided by USPTO

File Edit View Favorites Tools Help

Patent Application Information Retrieval

Correction Request Instructions

This screen allows applicants to enter and submit Correction Requests to data shown on the Publication Review screen to match previously filed application papers. This screen cannot accept special characters, e.g., accents.

The information that can be corrected with this screen includes:

- typographic corrections in the title to match the title on the specification;
- typographic corrections in the name of the inventor to match the spelling shown on the executed declaration;
- additions to the list of inventors if the person to be added to the listing has signed an oath or declaration under 37 CFR 1.63 that is in the application file and was either submitted with the application on filing or in reply to a Notice to File Missing Parts;
- typographic corrections in the residence of the inventor to match the spelling shown on the executed declaration (e.g., Wilmington, Delaware was recorded as Wilmington, Germany);
- typographic corrections in the prior U.S. application number to match the number included in the first sentence of the specification or the application data sheet;
- typographic corrections in the foreign priority application number and filing date to match the foreign priority claim or the application data sheet;
- correction of attorney docket number.

In addition, for purposes of patent application publication only, the following changes may be submitted via this screen and must be received earlier than 14 weeks prior to projected publication date:

- change of assignee information (the assignee(s) of record will not be changed);
- change to applicant selected figure for publication.

Note: The Correction Request may not be more than 4000 characters long. If your Request is more than 4000 characters, you may submit it in multiple requests.

Close Window

72

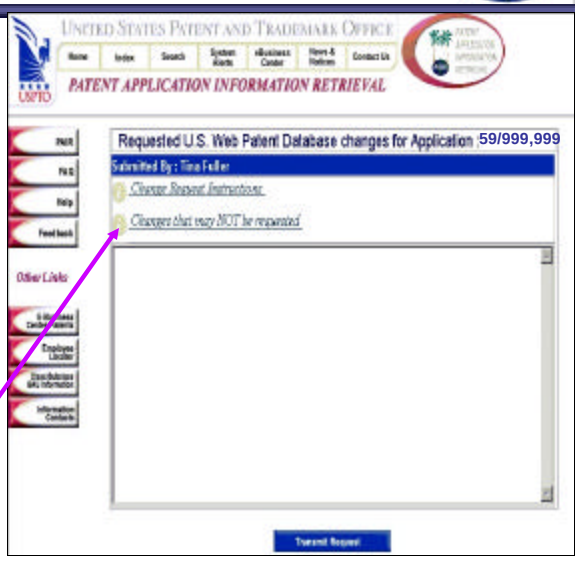
Patent Application Information Retrieval (PAIR)

Private PAIR

PG-Pub Bibliographic Data Change Screen
Information Guidelines

Unacceptable Change Requests

Users may access guidelines on the data changes which may NOT be requested using this mechanism by selecting the information link – Changes that may NOT be requested.



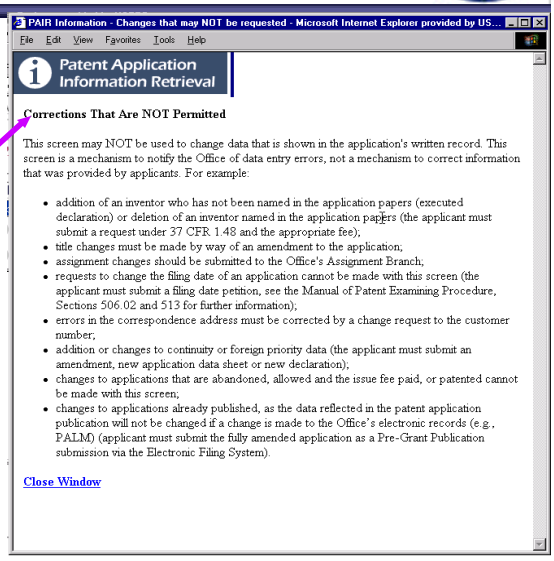
73

Patent Application Information Retrieval (PAIR)

Private PAIR

PG-Pub Bibliographic Data Change Screen
Information Guidelines

Corrections That Are NOT Permitted Information Link



74

Patent Application Information Retrieval (PAIR)

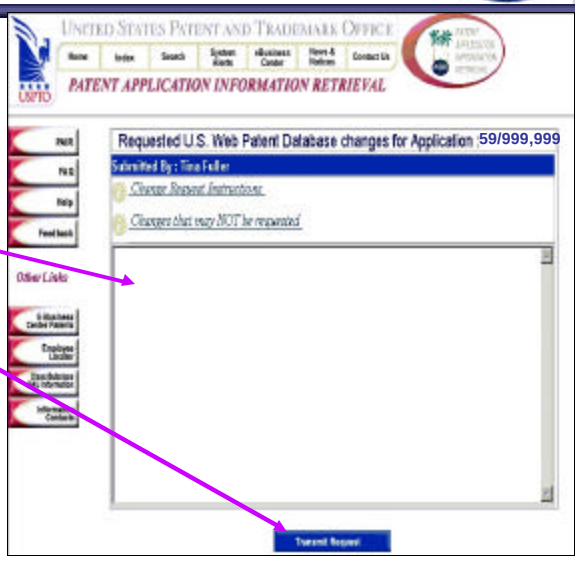
Private PAIR

PG-Pub Bibliographic Data Change Screen

Data Change Requests

Users may **enter data** change requests in the entry blank and select the **Transmit Request** button.

Users will receive an on-screen notification that the request has been received by the USPTO. Requests are processed by the Patents EBC.



84

Patent Application Information Retrieval (PAIR)

Customer Benefits

- Direct electronic information retrieval
- Real-time tracking of application status

USPTO Benefits

- Provide better customer service
- Permits PTO staff to focus on application processing

PCT E-FILING SYSTEM

Those who have e-filed US patent applications are familiar with the PASAT/XPort/ePave process. For most US filers, authoring is done with PASAT, which is basically Microsoft Word together with a plug-in for XML authoring.

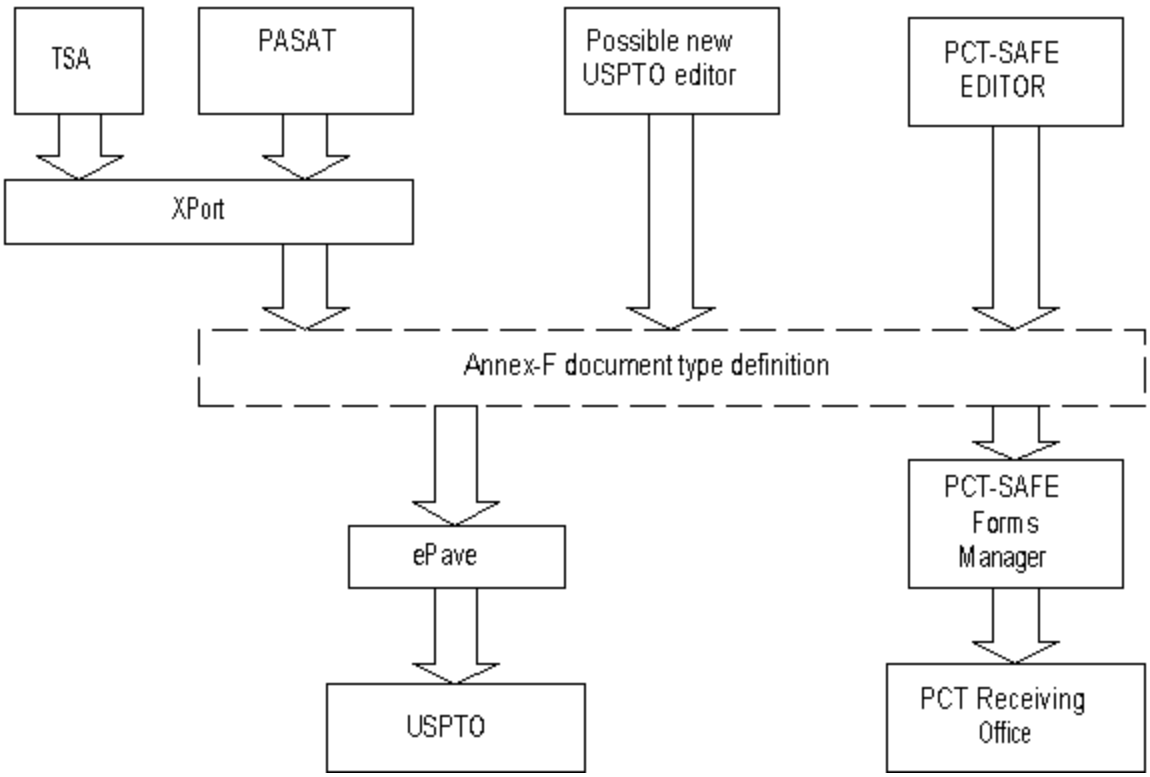
After an XML specification is prepared PASAT, it is necessary to use a conversion utility called XPort. This utility converts the PASAT output (which complies with an older XML document type definition) into XML code which complies with the Annex-F document type definition. (This definition has been agreed to by USPTO, WIPO, EPO and JPO.)

The Annex-F XML file created by XPort is then given to ePave, which packages the submission and transmits it to the US Patent Office.

PCT-SAFE. The World Intellectual Property Organization (WIPO) is conducting a pilot program in which a small number of filers are filing PCT applications electronically. After the PCT e-filing software (called PCT-SAFE) is tested and (hopefully) debugged, it will be released for use by all PCT filers.

The PCT e-filing system begins with the PCT-SAFE Editor (PSE). This editor is basically a commercial XML editor (XMetal from Corel) together with some customizations for use with patent applications. The design of PSE is thus quite different from that of PASAT; PASAT starts with a word processor and adds a plug-in to make possible XML editing, while PSE starts with an XML editor to which code has been added for patent applications.

User preferences may prompt some users to prefer one editor or another. For example, users who have previously done HTML editing may find themselves more comfortable with the user interface of the PCT-SAFE editor.



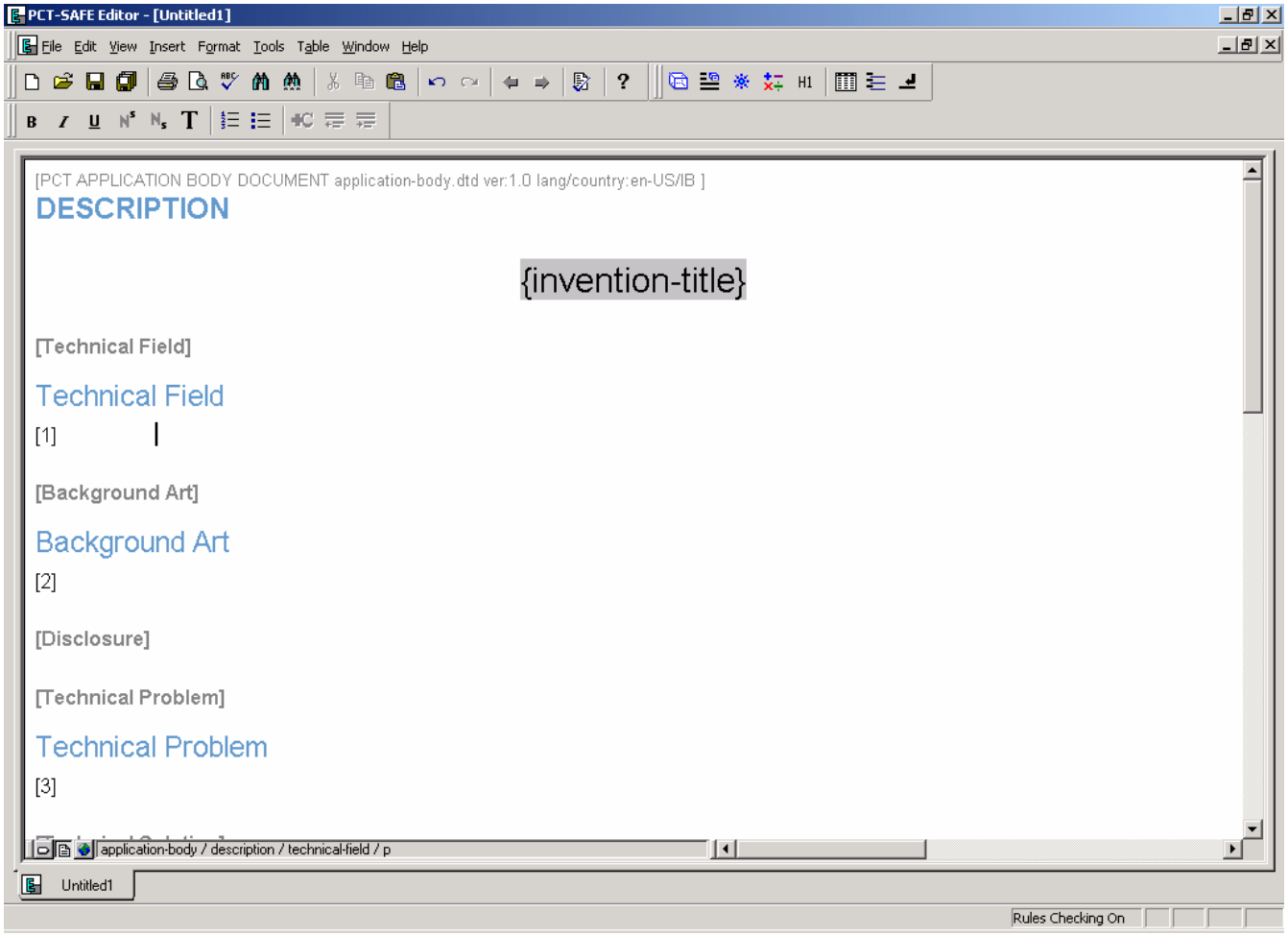
The XML file created by PSE is provided to the PCT-SAFE Forms Manager (FM), which assembles a submission package and transmits it to a PCT Receiving Office (RO). The PCT-SAFE FM is closely modeled on the well-known PCT-Easy system. This means that anyone who wants to get a head start on learning to use PCT-SAFE may do so by using and becoming familiar with PCT-Easy.

During the pilot program the only RO that will receive e-filings is the IB (International Bureau). When the system is made available generally, other Receiving Offices will also receive e-filings.

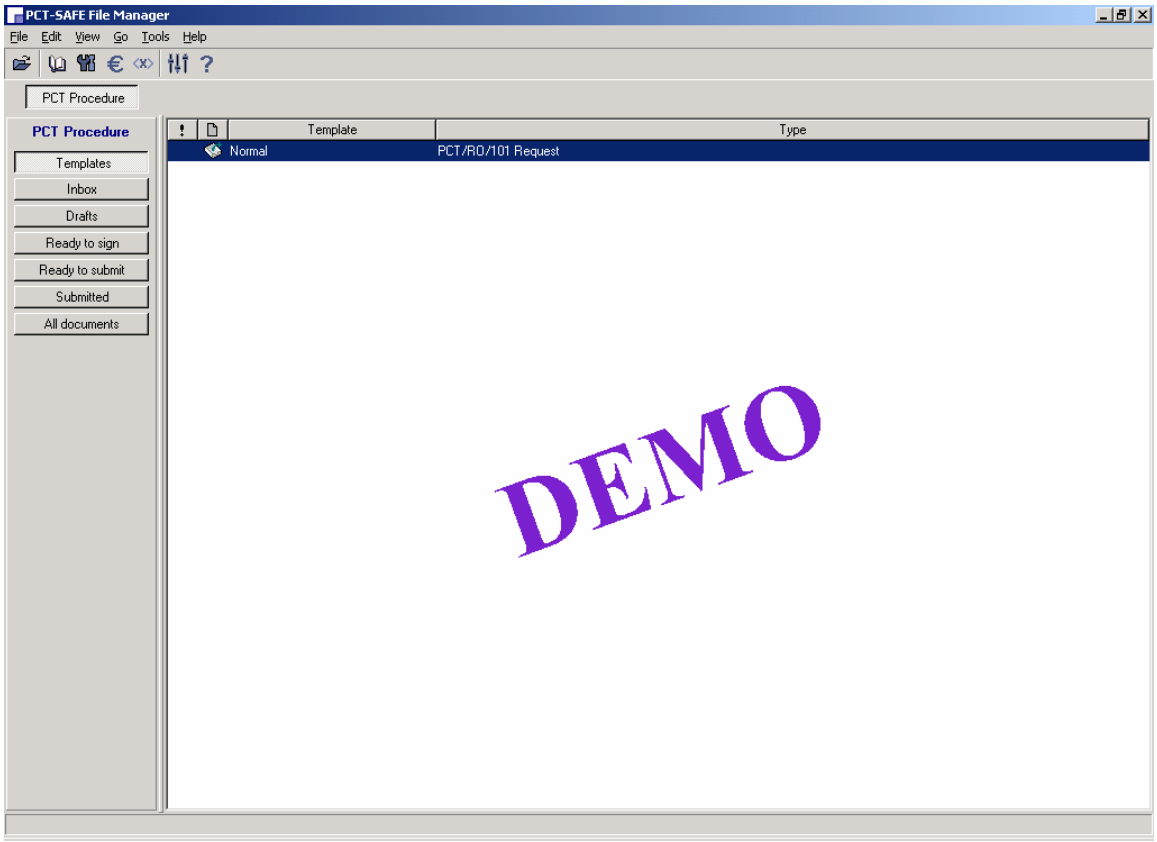
It should be appreciated that XPort and PSE each are designed to create XML files compliant with the Annex-F DTD. As such, it should be possible to author a patent specification using any of the editors mentioned above, and to file that specification using either of the submission engines (ePave or PCT-SAFE FM). This would, for example, permit a filer to prepare an application using PSE and file it using ePave, or to prepare an application using PASAT/XPort and file it using PCT-SAFE FM.

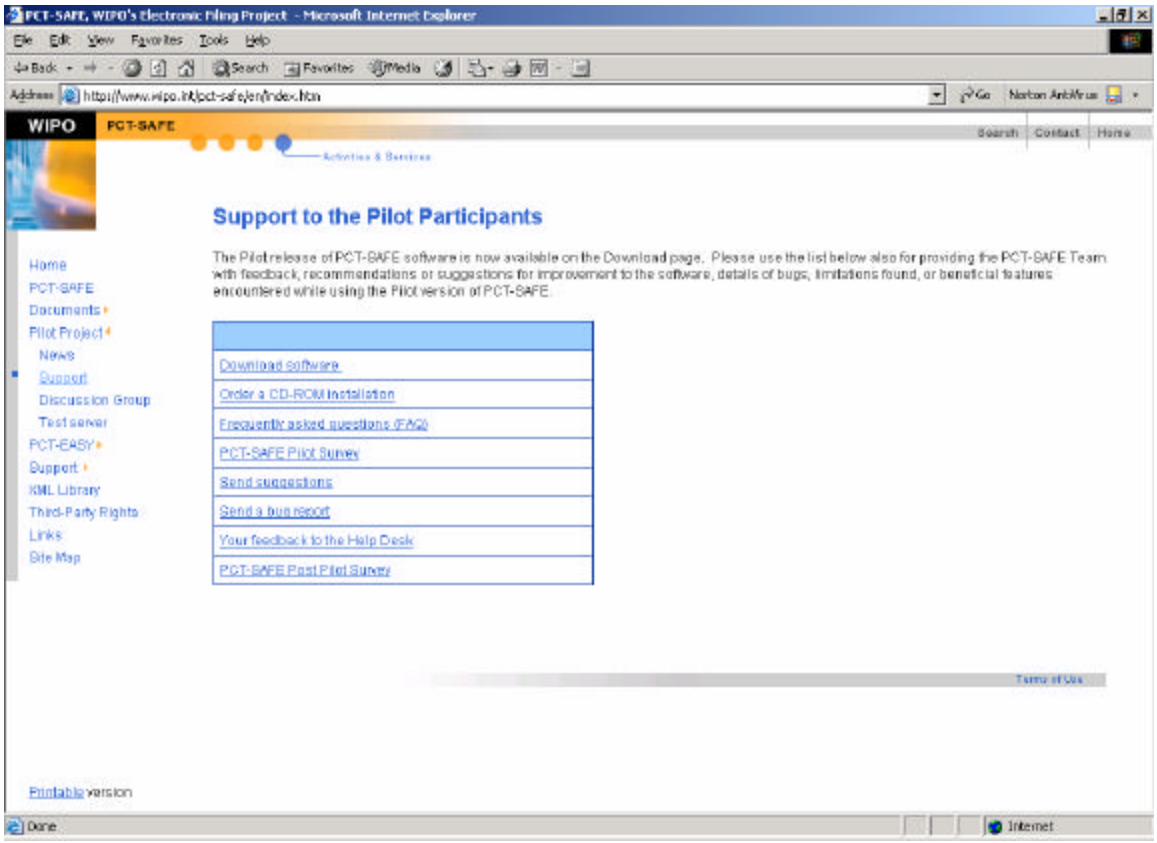
There have been unconfirmed reports that later this year, the US Patent Office will release a new XML editor for use in preparing patent applications. If so, then this too could probably be used to prepare XML files for submission via either ePave or PCT-SAFE FM.

PCT-SAFE Editor:



PCT SAFE Submission Tool, based on PCT EASY.


PCT-SAFE File Manager
File Edit View Go Tools Help
PCT Procedure
PCT Procedure
Templates
Inbox
Drafts
Ready to sign
Ready to submit
Submitted
All documents
Template
Type
Normal
PCT/RO/101 Request
DEMO


PCT-SAFE, WIPO's Electronic Filing Project - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://www.wipo.int/pct-safe/en/index.htm
WIPO
PCT-SAFE
Search Contact Home
Support to the Pilot Participants
The Pilot release of PCT-SAFE software is now available on the Download page. Please use the list below also for providing the PCT-SAFE Team with feedback, recommendations or suggestions for improvement to the software, details of bugs, limitations found, or beneficial features encountered while using the Pilot version of PCT-SAFE.
Home
PCT-SAFE
Documents
Pilot Project
News
Support
Discussion Group
Test server
PCT-EASY
Support
XML Library
Third-Party Rights
Links
Site Map
Download software
Order a CD-ROM installation
Frequently asked questions (FAQ)
PCT-SAFE Pilot Survey
Send suggestions
Send a bug report
Your feedback to the Help Desk
PCT-SAFE Post Pilot Survey
Printable version
Done
Internet

http://www.wipo.int/pct-safe/en/index.htm - help page.

Some helpful resources:

There is an EFS mailing list where the EFS users post questions and discuss EFS solutions: efs@patents.com. To join, send email to imailsrv@patents.com and in the body of the message, say subscribe EFS Your Name.