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WORLD INTELLECTUAL PROPERTY ORGANIZATION
GENEVA

PATENT COOPERATION TREATY (PCT)

ADMINISTRATIVE INSTRUCTIONS
UNDER THE PATENT COOPERATION TREATY:

PROPOSED MODIFICATIONS RELATING TO THE
ELECTRONIC FILING, PROCESSING, STORAGE AND
RECORDS MANAGEMENT OF INTERNATIONAL APPLICATIONS

COMMENTS BY THE
UNITED STATES PATENT AND TRADEMARK OFFICE

*for consideration at a
PCT informal consultation meeting on electronic filing,
Geneva, July 11 to 14, 2000*

USPTO RESPONSE
TO PROPOSED ADMINISTRATIVE INSTRUCTIONS FOR THE PCT FOR
ELECTRONIC FILING

Reference:

PCT Regulation 89*bis*.1 (c) indicates:

The Administrative Instructions shall set out the provisions and requirements in relation to the filing and processing of international applications filed, in whole or in part, in electronic form or by electronic means, including but not limited to, provisions and requirements in relation to acknowledgment of receipt, procedures relating to the according of an international filing date, physical requirements and the consequences of non-compliance with those requirements, signature of documents, means of authentication of documents and of the identity of parties communicating with Offices and authorities, and the operation of Article 12 in relation to the home copy, the record copy and the search copy, and may contain different provisions and requirements in relation to international applications filed in different languages.

General Comment:

One of our concerns is that the system/systems that will be put in place by the AIs and Annex F will present too many options to applicants, ROs, DOs, etc., so that our goals of “compatibility” and “interconnectivity” and “formatting once and using many times” will be thwarted by a system with too much variability and too many options. Will applicants be able to readily file in a variety of national offices and international ROs/DOs by virtue of the system that is being put in place by these AIs? If not, we are going down the wrong path.

General Note:

All of the deletions (strike-through) and insertions (underlined) displayed in the present document are as a result of this Office’s review.

PART 7

INSTRUCTIONS RELATING TO ELECTRONIC FILING, PROCESSING, STORAGE
AND RECORDS MANAGEMENT OF INTERNATIONAL APPLICATIONS

Section 701

Definitions

For the purposes of this Part, unless the contrary intention appears:

[COMMENT: Definitions of terms are needed in Part 7 and Annex F.]

(i) “means [\[US Changes\] of transmittal](#)” in connection with a document in electronic form, refers to the manner in which a document is transmitted, for example, by electronic means or physical means;

[COMMENT: Part 7 envisages that international applications (and related documents) may be submitted in electronic form by either electronic means or physical means. For example, an electronic transmission from computer to computer would represent a document in electronic form transmitted by electronic means while a floppy disk or CD-ROM mailed to an Office would represent a document in electronic form transmitted by physical means.

US COMMENT: The usage of these terms, form, means of transmittal, and such like, throughout this document should be conformed to the usage in the Patent Law Treaty, especially its Article 8 and Rule 8. There are numerous spots (e.g. §703) where the old terms are evident.

(ii) “electronic document format” refers to the presentation or arrangement of the information in a document in electronic form;

US COMMENT: same as above.

[Section 701, continued]

[COMMENT: Annex F currently provides for three permissible electronic document formats:

- (a) Extensible Markup Language (XML), a subset of Standard Generalized Markup Language (SGML), which is the preferred electronic document format because it is based on international standards and character coded;
- (b) standard image format (TIFF or JPEG); and
- (c) PDF (industry de facto standard).

“Electronic document format” requirements include those relating to the acceptable character set. Draft Annex F, Appendix I, Attachment 1 sets out the acceptable character sets for documents submitted in XML format.]

(iii) “electronic signature” refers to a signature in electronic form which is attached to, or logically associated with, an electronic document. ~~and which indicates the signer’s approval of the content of the document;~~

US COMMENT: These administrative instructions are addressing the electronic nature of the signature. There is no attempt to add or subtract meaning to the signature from that established by PCT law; whatever meaning it had in wet ink it has also in electronic form.

[COMMENT: Annex F sets out the types of acceptable signatures. Each receiving Office accepting electronic filing will need to decide what type is acceptable to it (see Section 703(c)(i)). Each designated Office accepting international applications in electronic form will need to decide what type is acceptable in order to meet national law requirements when the applicant enters the national phase (see Section 711(b)).]

[(iv) “digital certificate” refers to a record issued by a certification authority and which purports to ~~ascertain~~ [US Changes] indicate the identity of a person or entity who holds a particular key pair, in the context of public key infrastructure;] i.e. substitute the below text which itemizes the certificate’s elements:

[Section 701, continued]

[US Suggestion] “(iv) “digital certificate” refers to a digital representation of information which at least (1) identifies the certification authority issuing it, (2) names or identifies its subscriber, (3) contains the subscriber's public key, (4) identifies its operational period, and (5) is digitally signed by the certification authority issuing it.”

[COMMENT: The term is referred to in Sections 703(c)(i) and 711(b). The definition is slightly modified from that which appears in Article 2(c) of the UNCITRAL Draft Uniform Rules on Electronic Signatures.]

(v) “certification authority” ~~refers to a person who or entity which issues certificates or provides other services related to electronic signatures.~~ refers to an entity which issues digital certificates, manages digital certificates and keys and maintains a repository of them.

US COMMENT: The “or provides other services” clause relates to the usual definition (see EC directive) of a Certification Services Provider. The suggested language is closer to the Bridge CP definitions and is generally more accepted for a CA.

[COMMENT: The term is referred to in Section 703(c)(i). The definition is slightly modified from that which appears in Article 2 of the EC Directive on a Common Framework for Electronic Signatures.]

US COMMENT: We suggest a definition of the word electronic to include information expressed in any digital, optical or otherwise encoded manner, based on the Uncitral Guide to Enactment of the Model Law on Electronic Commerce.

[US Changes] (vi) “electronic” refers to technology having electrical, digital, magnetic, optical, electromagnetic, or similar capabilities regardless of medium.

Section 702

Effect of International Applications in Electronic Form; Record Copy

(a) International applications filed in electronic form, subject to this Part, shall ~~have the effect of a regular national application in each designated States as of the international filing date~~ not be denied legal effect, validity or enforceability solely on the grounds of their electronic nature.

US COMMENT: This AI was just a restatement of Article 11(3). The Uncitral model, in its Article 5, “shall not be denied legal effect because of its electronic nature.” is more appropriate.

[COMMENT: By virtue of PCT Articles 11, 14 and 27(1) and Rule 89bis.1, an international application filed in electronic form in accordance with Part 7 (and hence Annex F) would be validly filed under the PCT and could not be denied legal effect, validity or enforceability solely on the grounds that it is in electronic form or that it existed at one time in electronic form. This is consistent with the general principle stated in UNCITRAL Model Law Article 5. Rule 89bis.2 would make this provision (and the other provisions in proposed Part 7) applicable to other documents submitted in relation to international applications.]

(b) Where an international application is filed wholly or partially in electronic form, the record copy [US Changes] ~~in relation to~~ of that application for the purposes of Article 12 shall be:

(i) where the application is filed, whether by electronic means or by physical means, as a signed wrapped application document package in accordance with Annex F, an unencrypted decompressed readable copy of that package;

US COMMENT: The standard calls for the record copy to be the unencrypted decompressed “readable” form.

[Section 702(b), continued]

(ii) where the application is not filed as a signed wrapped application document package in accordance with Annex F, a [readable](#) copy of the application as filed.

[\(iii\) where the application is filed partially in paper and partially in electronic form, a copy of the electronic portion and the paper portion as filed or as converted to electronic form.](#)

US COMMENT: A sequence listing or other attachments may be submitted in electronic form as supplements to the paper portion of the application. They may be in a different format from the rest of the application, which would be permitted by new section (iii).

[COMMENT: For additional information concerning the creation of the “signed, wrapped application document package”, see Annex F, Appendix 1, Part 5. Where the international application as submitted is not in an electronic document format accepted by the receiving Office and Section 703(b) applies, the record copy does not include any corrections submitted with a view to bringing the application into an acceptable format: In such a case, however, the corrected application—in an electronic document format accepted by the receiving Office—will be used for practical purposes for subsequent processing.

[US Changes] The following text, which was formerly the last sentence in the comment above, should be part of this Administrative Instructions, and not just a comment.

[\(x\) Where, pursuant to these instructions, a corrected copy of an international application is submitted, both the ~~record~~ originally filed copy and the corrected copy will be sent by the receiving Office to the International Bureau.\]](#)

(c) Where the international application is filed in electronic form on a physical medium, the record copy does not include the physical medium.

[Section 702, continued]

(d) Where an international application is filed on paper, any receiving Office may choose to forward ~~scanned images of the paper application in electronic form~~ to the International Bureau as the record copy [US Changes] a true and accurate representation of the paper application in an electronic form as specified in Annex F.

US COMMENT: The changes suggested above expand the electronic document concept to include more than just scanned images, so an accurate electronic document in a number of formats may be acceptable. Any RO that sends the electronic version of the submission should review the results to assure that it is a true and accurate representation of the application.

[COMMENT: This paragraph is designed to provide receiving Offices with the facility to transmit the record copy to the International Bureau in electronic form even where the international application was filed on paper. Several Offices have urged the International Bureau to permit this practice, particularly those Offices which scan incoming paper national and regional applications.]

Section 703

Acceptance of International Applications

Filed in Electronic Form

(a) [\[NOTE: Rearranged\]](#) Each receiving Office which accepts the filing of international applications in electronic form shall accept at least one format for such filings from among those set out in Annex F. [\[US Changes\]](#) [In those Offices, an](#) international application may be filed in electronic form by any means accepted by the receiving Office. ~~and~~. [\[US Changes\]](#) [Each submitted file](#) shall be in one of the electronic document formats set out in Annex F which is accepted by the receiving Office.

US COMMENT: The order of the sentences in 703(a) has been reversed to emphasize that these sections only apply to ROs that sign up for electronic filing. Notice the key dependence of this section on clear definitions of form, format and means. A single IA may include a specification in XML and a sequence listing in ST.25 or ASCII; thus the may be in different formats.

US COMMENT: This section should also conform to the definitions of terms in the PLT.

US COMMENT: This section is a repository for a number of provisions that relate to the filing of electronic applications. They do not follow a logical sequence, or a sense of developing growth of the framework. Maybe this would be a more natural order: a1) Notice to IB a2) publication a3)changes b)formats c)malfunction d) special case e) savings paper

[COMMENT: The acceptable electronic document formats are set out in Annex F, Appendix 1, Attachment 1.]

[Section 703, continued]

(b) Where the international application [\[US Changes\]](#) ~~is not~~ [has not been submitted](#) in an electronic document format accepted by the receiving Office, the receiving Office shall not be obliged to receive or otherwise process the application in such a format. [The Office shall make reasonable efforts to read and receive the file to preserve the filing date, if otherwise compliant with Article 11, using standard software already available to the Office.](#) If the receiving Office ~~decides to~~ receive such an international application, the application shall be considered not to comply with the prescribed physical requirements referred to in Article 14(1)(a)(v) and the receiving Office shall proceed accordingly.

US COMMENT: As discussed in the working group, an application that is otherwise compliant with Article 11, that can be read using standard software (e.g. an e-mail containing the Article 11 elements), should be treated as containing formal defects under Article 14 and be required to be resubmitted in proper form. The filing date should be preserved if reasonably possible.

(c) Each receiving Office which accepts the filing of international applications in electronic form shall notify the International Bureau of [its intention to do so. The notification shall specify:](#)

US COMMENT: Note clarifications. The notice is an important part of the administration of electronic filing. It is understood that the notice to the IB takes place when the receiving Office has settled into a production mode of electronic filing.

[COMMENT: Rule 89bis.1(d) provides for receiving Offices to notify the International Bureau if they accept international applications filed in electronic form. Similar to the requirements concerning languages, fees and filing by facsimile transmission, applicants need to be on notice as to which electronic formats and the means are acceptable to which receiving Offices. Paragraph (c) thus requires receiving Offices to inform the International Bureau of the electronic formats and the means which the receiving Office will accept as well as other details. Details are set out in items (i) to (iv), under which the notification must include the specification of the requirements of the receiving Office and the electronic methods of communication accepted by the receiving Office, such as electronic mail, etc.]

[Section 703(c), continued]

(i) the means and electronic document formats accepted by the receiving Office and used by the receiving Office from among those set out in Annex F, including, but not limited to, the requirements as to electronic signature, electronic envelope format, ~~acceptable Certification Authorities~~, and acceptable classes of digital certificates;

US COMMENT: In §707(c) a format for the issuance of notifications and invitations that will be used by the receiving Office must be specified. Please see below concerning CAs

[COMMENT: Annex F, Appendix 1, Part 3, contains details concerning the classes of digital certificates and Certification Authorities, and Part 4 contains details of the types of electronic signatures available.]

(ii) the conditions, rules and procedures relating to electronic receipt, including hours of operation, choices for acknowledgment processes, choices for electronic receipt of invitations and notifications, any methods of online payment, details concerning any help desks, electronic and software requirements and other administrative matters related to the electronic filing of international applications and related documents;

[COMMENT: The reference to electronic payment does not imply that receiving Offices are required to offer means of online payment.]

US COMMENT: put into the definitions that related documents are always intended, and let that be an end to it.

(iii) procedures which applicants may follow as alternatives when the electronic systems of the Office are not available for the filing of documents in electronic form;

[Section 703(c), continued]

(iv) certificate authorities accepted by the Office, and the electronic address of a listing of the certificate policies under which the certificates are issued;

(v) any change to the matters indicated under items (i), (ii), (iii) and (iv).

(d) The International Bureau shall promptly publish in the Gazette any notifications furnished to it under paragraph (c).

[COMMENT: In relation to Certification Authorities (CAs), the International Bureau will publish the list of those specified by the receiving Offices as in (c)(i), and will include a link to the published ~~certificate certification~~ policies ~~statements~~ of the CAs.] US COMMENT: Suggest it be included in the list in (c) above.

(e) When the electronic systems of the receiving Office are not available for the filing of documents in electronic form, the receiving Office shall take action by means reasonably available under the circumstances [US Changes] as specified in their notice in §703 to so inform applicants and potential applicants.

[COMMENT: An example of the “means reasonably available” would be a notification on the Internet site of the Office that its electronic systems are not available. [US Changes] These means are publicized in the Office’s Electronic Filing notice to the IB- please see (c) above.]

(f) The effective date of a change of electronic document format or means accepted by a receiving Office under paragraph (c)(i), or of any other change which restricts filing options, shall be [US Changes] not less than two months after the date of publication of the notification of such change in the Gazette; otherwise, the effective date of any change shall be determined by the receiving Office.

[Section 703, continued]

(g) Nothing in this Section shall prevent any receiving Office from accepting, in a particular case, the filing of an international application in electronic form by a means or in a ~~an electronic document~~ format other than that which the receiving Office has notified the International Bureau that it accepts.

[COMMENT: By the wording “in a particular case” it is meant that, if the receiving Office is able to read the electronic document without resorting to extraordinary measures and if it chooses to do so, it may receive and process the international application despite the fact that it is not required to do so. A receiving Office is thus not limited by the indications notified by it under Section 703(c)—it could be more accommodating, where possible.]

[\[\(h\)](#) Any receiving Office may permit applicants to file, at the same time as any international application in electronic form, a copy of such application on paper. Where such a paper copy is received on the same day as the application in electronic form, the paper copy may be substituted for the application in electronic form by the receiving Office where the document in electronic form is unusable, and the receiving Office shall inform the applicant accordingly.] [i.e., delete this paragraph](#)

US COMMENT: The submission of the two copies in different forms creates a significant administrative burden. The underlying concern, fear of failure of receipt of the specification, can be handled in other ways. For example, the transmission of a meaningful acknowledgement that identifies the submitted files with good specificity would allow resubmission of those files in case of loss, destruction or infection. See §705.

[COMMENT: An electronic submission would be defective or unusable when it is found to be illegible or is found to contain a virus or other malicious logic. Where no such paper copy has been filed, Section 706 would apply. The possibility of parallel paper filings has been included in response to the concerns expressed by the Delegation of Kenya at the March 2000 meeting of the PCT Assembly (see document PCT/A/28/5, paragraph 50), in relation to the consequences of submitting an international application in electronic form which was infected by a virus.]

Section 704

Signature of International Applications

Filed in Electronic Form

(a) An international application filed in electronic form shall be signed using a type of electronic signature [\[US Changes\] as specified in Annex F and as](#) accepted by the receiving Office ~~in accordance with Section 703~~. Any international application so signed shall be considered to have been signed as required by the Treaty and the Regulations.

US COMMENT: The specifications for the electronic signature are indicated in Annex F. The second sentence is crucial. Please also see the comments to §711 involving acceptance by the DO of actions by the RO consistent with Annex F.

[COMMENT: Under Section 703(c)(i), receiving Offices must indicate their requirements as to electronic signature. Permissible types of electronic signature may be any or all of the following, which are explained in Annex F, Appendix 1, Part 4: a basic electronic signature (which can be a string of characters, a facsimile image of a signature or a “click-wrap” signature), or an enhanced electronic signature (for example, a digital signature supported by certificates). By deciding which electronic signature type(s) they will accept, receiving Offices should keep in mind the options which are reasonably available to the applicants who file with them. Under Section 711(b), designated Offices are also required to indicate the types of electronic signature acceptable to them, thus providing applicants with the information they need in order to comply with electronic signature requirements in the national phase.]

(b) Where a type of electronic signature other than a type accepted by the receiving Office is used, the receiving Office shall invite the applicant to furnish a complying signature, in accordance with Article 14(1)(b).

[COMMENT: This situation is analogous to paper. Where an electronic document is not signed in the manner prescribed by the receiving Office in accordance with Section 703(c)(i), it is in fact considered not to have been signed in accordance with Article 14 and the receiving Office makes the appropriate invitation to correct.]

Section 705

Acknowledgment of Receipt of International Applications

Filed in Electronic Form and by Electronic Means

(a) Subject to paragraph (b), each receiving Office which accepts the filing of international applications in electronic form and by electronic means shall, where possible and in accordance with Annex F, acknowledge receipt by electronic means of any international application so filed. Such acknowledgment shall include the identity of the Office, the date and time of the document's receipt, and an Office-assigned reference number or application number, if assigned. [US Changes] The acknowledgement shall also include a list of the names of the files transferred, and their sizes and dates of creation. If the submission was formatted according to the standard of Annex F, the acknowledgement may also contain a message digest of the submission.

US COMMENT: The elements originally listed above do not contain sufficient specificity to protect the applicant if the Office misplaces his submission. There should be sufficient information returned to the applicant so he 1) has a reasonable expectation that the files transferred have come through the process intact and 2) can make a reasonable showing of what was sent if he should have to reestablish the transmission because the Office lost or destroyed his files. A standard listing of files contains the names of the files, their sizes (usually in bytes, kilobytes or megabytes) and the dates of creation of the files. When the acknowledgement contains that information, the applicant has a reasonable assurance that the files were received safely. The PKI standard allows us to do better, however. Each bundle of files has a unique message digest (a number), derived from the contents of the files in that bundle. If substitute files ever have to be submitted, and when processed they evoke the same message digest as the original files as evidenced in writing on the applicant's acknowledgement, then there is a probabilistic certainty that the files are the same as originally submitted. This gives the Office and the applicant the greatest assurance of the accuracy of the re-submission.

[Section 705(a), continued]

[COMMENT: Rule 89bis provides that the Administrative Instructions should set out the provisions for acknowledgment of receipt of international applications filed in electronic form. This draft Section would make the default acknowledgment by electronic means for electronic filings, where it is possible for the receiving Office to do so; that is, where the receiving Office has the ability to do so and where the applicant has provided the necessary data (for example, an email address) so that an electronic acknowledgment can be sent. This Section should not be interpreted to mean that the document whose receipt was acknowledged was being treated as an international application or that it had received an international filing date (see paragraph 46, Assembly report).]

(b) Any applicant filing an international application in electronic form and by electronic means may indicate other means by which the applicant desires to receive acknowledgment of receipt of the international application from among those offered by the receiving Office and shall provide the necessary indications so that receipt can be acknowledged by the means indicated. Where the applicant makes such indications, the receiving Office shall acknowledge receipt by the means indicated.

[COMMENT: All Offices must have a default practice (indicated in paragraph (a)) in case the applicant does not make any indication about the type of acknowledgment he desires. Paragraph (b) allows the applicant to choose from the available means the one by which he wishes to have the receipt of his international application acknowledged. Applicants desiring to select such an alternative means of acknowledgment of receipt should select from those means indicated by the receiving Office in accordance with draft Section 703(c)(ii). The addition of the words “in electronic form” make this provision inapplicable to applications received by fax (fax transmission is an electronic means but the application is in paper form, not electronic form).]

[Section 705, continued]

(c) Where the receiving Office sends an electronic acknowledgment of receipt in accordance with paragraph (a) [\[US Changes\]](#) or (b) and [if](#) it becomes apparent to [the](#) Office that the acknowledgment was not successfully transmitted [and received](#), the Office shall [make a reasonable effort to](#) promptly transmit such acknowledgment by other means where the necessary indications furnished to that Office so permit. The other means shall be described in the Office's notification under Section 703(c).

US COMMENT: A failed electronic acknowledgement, either standard under (a) or as selected by the applicant under (b) should be pursued to completion in one form or another. Reasonable efforts should be used to send the indication, as an absolute requirement can be a very heavy burden on the Office.

[COMMENT: Where the receiving Office finds a problem with the electronic acknowledgment (for example, an e-mail is found to be undeliverable), the receiving Office should default to paper medium, preferably by fax, assuming the necessary indications have been furnished by the applicant. This puts an obligation on Offices to track what happens to their electronic acknowledgments and to make such fax capability available. As a practical matter, where the applicant files by electronic means and has not made an indication under paragraph (b) but does not receive an electronic acknowledgment of receipt from the receiving Office in accordance with paragraph (a) within a reasonable period after the filing, the applicant should consider resubmitting the application. Where no acknowledgment of an electronic filing has been received within such reasonable period, applicants would be on notice that it may be necessary to resubmit the application.]

Section 706

Legibility of International Applications Filed in Electronic Form; Infected Files

(a) Upon receipt of an international application filed in electronic form ~~in accordance with Section 703(a)~~, the receiving Office shall check whether such international application is legible. If all or part of the international application is illegible ~~for appears to be distorted in meaning~~ or if part of the international application appears not to have been received, the international application shall be treated as not having been received to the extent that it is illegible, ~~has been distorted in meaning~~ or that the attempted transmission failed, and to the extent that Section 703(h) is not applicable, and the receiving Office shall, if possible, promptly notify the applicant accordingly.

US COMMENT: If any authority is to be cited, it would be Rule 89bis.1. However we do not see why one must be cited.

What is legible in the electronic context? If a string of bits (0 or 1) is received, but it cannot be resolved into even meaningful characters in the expected code, we would call the submission illegible, and treat it as not having been received. However, if the bits can be resolved into characters, but the characters do not appear to make sense (e.g. all of the “a”s have been converted to “b”s) then we would propose calling the message, or part of a message, “legible but unintelligible”. Such a message could be received, but it would be up to the applicant to objectively demonstrate that it has meaning. An Office can only work with what it has received, and should not speculate concerning the meaning. We thus support deleting the section above in brackets.

The comment below suggests applying PCT Rule 91, but we are not convinced that rectification of this error is appropriate.

[COMMENT: (1) Paragraph (a) is based on current Rule 92.4(c) and paragraph 16 of the Receiving Office Guidelines concerning transmission by facsimile or other like means. Paragraph (a) also reflects the practice currently in place for the filing of diskettes containing electronic data in connection with PCT-EASY filings (as set out in Circular PCT 697, paragraphs 37 and 38, December 22, 1998).

[Section 706(a), continued]

(2) The “if possible” language was included specifically because if the submission is an initial filing and the electronic file cannot be read, it may not be possible to contact the applicant. The receiving Office should attempt to do so, however, by sending a message to the originating electronic address. [US Changes] ~~In such situations, draft Section 705(c) may apply and as a result the applicant who does not receive an acknowledgment of receipt will be on notice to re file that submission.~~

US COMMENT: Section 705(c) referred to acknowledgement of receipt of international applications. A notice of illegible transmission is a different notice. An applicant could receive an acknowledgement indicating successful receipt of the application, and then receive a notice that the IA was illegible.

(3) Other errors may occur in relation to the electronic filings which may result in partial illegibility of the application documents, for example, transposition of characters due to use of an incorrect code page or incorrect rendering of allowed characters in sequence listings. It is in the interest of all PCT Offices and Authorities as well as PCT applicants that automatic mechanisms to conduct a check for such defects should be explored for future use. However, while such solutions are being investigated, it is urged on all PCT Offices and Authorities that PCT Rule 91 be interpreted and applied liberally in the interests of applicants to allow the correction of such defects.]

(b) Any receiving Office which accepts international applications filed in electronic form [US Changes] ~~in accordance with Section 703(a)~~ shall check those applications for viruses and other forms of malicious logic. If it finds that an application is infected with a virus or other form of malicious logic, it shall promptly notify the applicant, may require the applicant to resubmit a clean copy of the application, and shall use all means reasonably available to it to read the document (for the purposes of performing an Article 11 check), including but not limited to printing the application. The receiving Office is not obliged to disinfect the infected files, but shall take all appropriate actions consistent with the objective of preserving, where possible, the international filing date.

US COMMENT: Even non-conforming submissions should be checked for viruses.

[Section 706(b), continued]

[COMMENT: In accordance with paragraph (b), all Offices and Authorities which accept electronic submissions under the PCT are required to scan those submissions for the presence of viruses. The recommended methodology for carrying out this scanning will be included in Annex F and suitable software will be made available by the International Bureau to all receiving Offices participating in the WIPONET project (see PCT Assembly report (document PCT/A/28/5), paragraph 50). The WIPONET project will also include a central virus scanning system and the distribution of manuals containing security guidelines to all Offices which are users of the WIPONET. Annex F will be amended to contain explicit guidance on how the virus check referred to in this paragraph should be performed, for example, using what software and what criteria.]

(c) Where the International Bureau finds that an electronic document is illegible or is infected with a virus or other form of malicious logic, it shall promptly draw the situation to the attention of the receiving Office which transmitted the illegible or infected file and that Office shall proceed to investigate the cause of the infection or the illegibility. Where the international application as filed was so infected or illegible, the receiving Office shall proceed under paragraph (a).

Section 707

Processing of International Applications

Filed in Electronic Form and by Electronic Means

(a) Any receiving Office which accepts the filing of international applications in electronic form shall process such applications in accordance with ~~Annex F-~~ [Section 708](#).

US COMMENT: The Electronic Records Management principles for both the storage and processing of AIs is in Section 708.

(b) Where an international application is filed in electronic form and by electronic means, its date of receipt shall be the date on which the application is fully and successfully received by the receiving Office.

[COMMENT: Technical input will be necessary in order to better understand whether evidence could later be produced as to when an application is fully and successfully received and what type of evidence that might be.]

(c) Where the Treaty, the Regulations or these Administrative Instructions provides for the issuance of an invitation or notification and the international application has been filed by electronic means, such invitation or notification shall be transmitted to the applicant [US Changes] ~~by electronic means in accordance with Annex F~~ [as indicated by the Office in its published notices pursuant to §703\(c\)](#). However, the applicant may indicate other means by which he desires to receive invitations and notifications from among those offered by the receiving Office and shall provide the necessary indications so that such invitations and notifications can be communicated by the means indicated. ~~Section 705(e) shall apply mutatis mutandis to such electronic notifications and invitations.~~ [If an Office becomes aware that an applicant has not received an electronic notification or invitation, then it shall re-send the message according to its published policies.](#)

[Section 707(c), continued]

US COMMENT: We suggest we let each Office decide when it is ready to electronically transmit notices and invitations, and publish a notice to that effect, under §703(c).

Concerning the last sentence, please see the note in the comment below.

[COMMENT: (1) This proposal enables an Office to communicate invitations and notifications to the applicant by electronic means (for example by electronic mail) where the international application was received by electronic means. Paragraph (c) would allow applicants to indicate the means by which they wish to have their invitations and notifications sent in relation to international applications filed by electronic means, but Offices and Authorities must have a default practice in case the applicant does not make any indication. Receiving Offices are required under draft Section 703(c)(ii) to furnish these details.

(2) The reference to Section 705(c) in the last sentence means that Offices which send electronic invitations/notifications should default to paper, preferably fax, where it is clear that that invitation/notification has not been successfully transmitted. ~~This obliges Offices to track what happens to their electronic notifications and invitations.~~

[US Changes] Tracking the receipt of all electronic notifications and invitations without an automatic acknowledgment puts an undue burden on the Offices. We suggest retransmission only when the Office may be aware (by some notification or error alert) of the failure of the transmission.]

(d) Where the Treaty, the Regulations or these Administrative Instructions provide for the incorporation of amendments of or corrections to an international application by a national Office or intergovernmental organization, the incorporation of such amendments or corrections into an international application stored in electronic form shall be undertaken in accordance with the principles in Section 708(c) ~~and the electronic records management requirements of Annex F.~~

US COMMENT: The ERM requirements are in §708 and not in the Annex F.

[COMMENT: Aside from following the Regulations and Administrative Instructions already in place, how an Office performs the amendment or correction on international applications in electronic form is a technical issue. This proposal merely recognizes that such a procedure should not impair the integrity of the application.]

Section 708

Electronic Records Management Principles for the Receipt, Processing and Storage

of International Applications Filed in Electronic Form

US COMMENT: The terms “receipt, processing and storage” are intended to include all aspects of handling electronic records. We suggest that the Annex include references to the ISO and other electronic records management standards to provide further guidance for Offices.

(a) All national Offices and intergovernmental organizations which accept or process international applications in electronic form shall receive, process or store electronic ~~keep and store~~ records, copies and files in relation to such applications in accordance with Rule 93 and consistent with the principles of electronic records maintenance expressed in these Administrative Instruction. ~~as provided in Annex F, including all documents in electronic form in connection with such applications.~~

US COMMENT: The ERM principles have been moved from Annex F to this section of the Administrative Instructions. The last phrase is redundant both with the earlier wording of this paragraph and the definition added to §701.

[COMMENT: The purpose of paragraph (a) is to preserve, until the expiration of the time limits indicated in Rule 93, a chain of evidence containing the state of the application from the time it was filed until it was communicated to the designated Offices. The details of how that storage and record keeping is to be accomplished are dealt with in Annex F (Part 3.6 and Appendix I, Attachment 5). As stated in this Section, the records management practices of all Offices and Authorities which accept electronic filings will have to comply with these electronic records management (ERM) standards. It seems clear, however, that when an international application is filed electronically, as indicated in Annex F, the receiving Office will be obliged to make an archive copy of that electronic document for record keeping purposes and will ultimately forward the electronic application to the International Bureau, after having made copies for itself and for the International Searching Authority. (Note that any receiving Office which accepts electronic filings should be considered to de facto waive its “number of copies” requirement in relation to such filings, since copies can be made so easily.) It is important to note that Annex F, Part 3.6, states that “in order to ensure compliance with these [ERM] requirements, it could be foreseen that regular external audits of an Office’s ERM implementation will be undertaken with the results being published by the IB.” The mechanism for such audits will have to be discussed and agreed upon. Paragraph (a) also applies to the International Bureau.]

[Section 708, continued]

(b) All national Offices and intergovernmental organizations which ~~accept or maintain~~ receive, process or store electronic records shall certify that the electronic records in their control are maintained in accordance with ~~the requirements of Annex F~~ the principles of electronic records management expressed in these Administrative Instruction. A copy of that certification shall be made available on request to any party for purposes of presentation to any court of law or for use in other proceedings as evidence of the integrity and authenticity of the electronic records relating to international applications.

US COMMENT: USPTO is proposing a self-certification of accuracy of the records, by each Office, similar in concept to the certification indicated by the Paris Convention, in Article 4 D. (3) for copies of the application used for priority purposes. If preferred, self certification can be based on independent audits. Auditing standards would have to be developed.

[COMMENT: This is based on a proposal by the Delegation of the United States of America (for a new Rule 93.5) referred to in the PCT Assembly's report (document PCT/A/28/5, paragraph 69). The Delegations of France and the United Kingdom reserved their position on this proposal and several delegations indicated their preference for third party certification or audits of compliance with the applicable requirements relating to electronic records management. This certification does not necessarily preclude the use of audits. It would mean that all Offices accepting electronic filings would have to be prepared to issue such certifications.]

(c) In fulfilling their obligations under paragraph (a), all national Offices and intergovernmental organizations shall comply with the following principles of electronic records management:

[COMMENT: The principles contained under this paragraph were previously contained in Annex F, Section 3.4.1 as standards S1 to S14.]

[Section 708(c), continued]

(i) all documents filed in electronic form shall be capable of being printed on paper, and transferred to an electronic records management system ~~[archival media]~~, without loss of content or material alteration;

US COMMENT: Media is a part of ERM but as part of a system which includes much more. The ERM system prevents the alteration and provides audit, backup etc.

(ii) information that is routinely collected by the automated systems of an Office concerning the record's origin and destination, its context, and the date and time it was generated, sent or received, often called the document's “metadata,” is to be considered part of the electronic records and maintained by the automated systems; however, the requirement to maintain this data does not apply to any information whose sole purpose is to enable the record to be sent, communicated, or received.

US COMMENT: Changes are adapted from UNCITRAL Model Law Article 10 (1) and (3).

[COMMENT: A complete record as defined in archival science, and being more broadly accepted as a best practice consideration in electronic records management, has three primary elements: content, structure, and context.

“Content” is the actual data resulting from a transaction conducted in the normal course of business, such as from a receipt or creation process. For example, the filing of a patent application includes the application form with various data fields and a signature.

“Structure” is generally defined in two parts: logical structure and physical structure. The logical structure of a record are the identifiable parts of the record, such as the title, applicant and inventor(s) name, date, and signature on a patent application. These parts may be both computer identifiable, as in metadata, and/or human identifiable, as when rendered on a viewing screen or printer. The physical structure relates to the format of the record, such as the type font, spacing, page margins, logo, and the encoding of the file, which provide information for processing (rendering) or transferring of the record over the full retention period. “Context” is the meaning of the record, or the “what” and “why” of the business transaction from which the record was created or received. The context may be implicit in the content and structure of the record, such as a patent application which contains a form number or description and a signature block which states the specific intent of the signer. The context should also be preserved as metadata relating to a document. For example, preserving the answer “yes” without the question is useless.

[Section 708(c), continued]

One of the key requirements for admissibility in evidence in a court is that the record and the system receiving or creating the record store an “accurate” representation of the record. A record is more likely to be perceived as accurate and complete when as many elements of the record as possible are recorded, either within the content of the record or as metadata. The more complete a record can be shown to be, the more weight will be attributed to it for admissibility and for any subsequent cross-examination. It is recommended that the full content, structure and context of electronic records be acquired and stored. The complete electronic record document should be accessible and be able to be rendered on display screen or printer without any loss or alteration of content or structure for the full retention period. If the electronic document was originally generated on or from paper, then the appearance on the paper should be maintained, at least in the archived copy of the received document. If the submitted document only existed as a string of text, then that is all that must be archived. If the received information is simply bibliographic data, then the context of that data must be preserved. For example, if the applicant has answered questions on an input form, either on paper or on a web page, then at least the wording of the questions must be captured and associated with the data elements entered by the applicant. Thus if “1997” is entered by the applicant, then at least the relevant question, “What was the date of your invention?” must be captured. Even better would be the ability to recreate the screen into which the applicant placed the answer.]

(iii) electronic records ~~archive copies~~ shall be retained either in the electronic document format in which they are ~~submitted~~ generated, sent or received, or in a format which can be demonstrated to represent accurately the information generated, sent or received;

US COMMENT: Changes are adapted from UNCITRAL Model Law Article 10 (1)

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One of the critical needs in long term storage of electronic records is the need to recognize and plan for the migration of the electronic records as formats, media, hardware and software change. Failure to provide for migration may entail long term retention of obsolete media, hardware and software as well as the supporting computer infrastructure to display or print an old file. Such migration strategy is supported by the major national archives and was the intent of the UNCITRAL wording. The migration process and procedures need to be documented to ensure that the conversion results in migrated records that accurately represent the information that has been migrated.

[Section 708(c), continued]

(iv) a mechanism shall be provided to ensure the authenticity and integrity of the electronically filed document; this requires the ability to verify the identity of the submitter (the applicant or authorized representative responsible for the content of the document) or author of an Office document, as well as the ability to verify that ~~a document has not been altered without authorization since~~ a document has remained complete and unaltered within the system, apart from the addition of any endorsement and any change which arises in the normal course of communication, storage and display;

US COMMENT: Changes are adapted from UNCITRAL Model Law Article 8 (3)

[COMMENT: Note that the current thrust of the e-filing proposals would allow for filings in which there was no ability to “verify the identity” of the submitter, for example, those in which low-level, ad hoc certificates were used. This would mean that while electronic records management systems should have the ability to capture and store data relating to the authentication of the identity of the submitter, not all applications will be submitted so as to allow for such verification.]

(v) electronic filing, processing and storage systems shall provide backup and recovery mechanisms to protect electronic ~~filings~~ files against system failures;

(vi) electronic records shall be maintained for long-term access and retention in a manner that assures the accessibility of the information in a usable form for the required retention period;

US COMMENT: Changes are adapted from UNCITRAL Model Law Article 10 (1) with the addition of the “required retention period” to reflect the different retention periods required of ROs, the IB, etc.

[Section 708(c), continued]

[COMMENT: The fundamental principle of electronic records management is to provide for long-term access and retention over the complete record life cycle. Providing long-term access requires that every record of an electronic case file or individual electronic record be searchable and retrievable and that it can be rendered (displayed) on a display screen or printer without loss of content or structure.

Retention requirements stipulate that the integrity of the electronic case file and associated records be preserved over the full record life cycle, independent of changes in media technology or system obsolescence. As such, electronic records management solutions should not be predicated on a particular media or a single systems or application environment. The records should migrate to the newer technologies as they are installed, with no material loss of content or structure.]

(vii) electronic records management systems shall provide mechanisms and procedures for quality assurance and quality control of the equipment and procedures used for receipt, processing and storage of the ~~submitted~~ stored and managed documents;

US COMMENT: The QA and QC apply to the systems (both the procedures and the hardware and software) which manage and preserve the integrity the records. Although the goal is to preserve the documents as records the QA and QC has a broader focus than just the documents themselves. The auditing of these mechanisms and procedures constitutes an important part of the procedures of the certification in paragraph (b) above.

[COMMENT: The Office is responsible for ensuring the accuracy of its application file management data. How an Office chooses to ensure accuracy is a local Office management decision. Electronic filing systems should enable the Office to review submissions and validate the accuracy of the application file management data before accepting and docketing an electronic filing. These functions need to be supported by both the electronic filing system and the receiving Office's other automation systems. A record should be preserved of the procedures in place that were followed to assure the maintenance of accurate, reliable records throughout their required retention period]

(viii) electronic record management systems shall maintain an audit trail of all relevant information concerning additions, deletions or alterations to the electronic record management system and its records, ~~recording the receipt information or other information about the generation of each record and of all changes to the records.~~

[Section 708(c), continued]

US COMMENT: The system that maintains the electronic records needs to organize the information so that the reasons for all changes to the International Applications are clearly demonstrable. This includes submissions by the applicant and documents generated by the Offices forming the foundations to all changes to the IA. The certification in (b) will especially cover the quality of the audit trail.

[COMMENT: The audit trail essentially shows the use history of the electronic case file or record. From a records management and legal perspective, an audit trail details the “chain of custody” whereby the who, what, and when of each action, or event related to an electronic case file or record is evident. Events could include the creation or receipt, processing, access, routing, dissemination, copy, reformat, transfer, or disposal of an electronic record that forms part of a patent case file. From a legal perspective, an audit trail can also be used to provide proof that, for admissibility as evidence in a court, the authenticity of a record has been maintained, that is, that the integrity of the content, structure and context has not been altered, misused or inappropriately destroyed. Other appropriate information included in an audit log may include who accessed a record, copied a record, if a modified version of a document were created, indexing information relating the two documents. This would also include indexing information that associates a collection of records as a virtual case file. An application case file as it would exist in an electronic records management system is a collection of records that have a common index item (the application number) that associates them.]

Section 709

Access to Electronic Form of Documents

(a) Where the Treaty, the Regulations or these Administrative Instructions permit access to the international application, and the international application was filed in or is stored in electronic form, such access may, at the option of the Office, be provided by the use of electronic means[US Changes] ~~, in accordance with Annex F.~~

US COMMENT: We favor permitting and encouraging electronic access, however the “means” was not made part of Annex F, the technical specifications. It may be more appropriate that the access be in accordance with ERM principles expressed in the Section 708.

[COMMENT: This proposal provides for access to be given to international applications and related documents, in accordance with the existing provisions of the Treaty (Articles 30 and 38) and Regulations (Rule 94), by giving access to electronic copies of the application or related document. Annex F will contain recommendations on how such access could be provided (for example, by furnishing electronic copies of documents or by secure online access once entitlement has been verified). Such access to electronic documents, particularly when requested by applicants desiring access to their own application or file, also raises the issue of the authentication of identity of the applicants (for example, via electronic certificates). This provision should also provide the basis for access to information about the status of the filing as the USPTO is doing with its PAIR system and the EPO is doing with its online register of European patent application data via EPOLine. Under future automated systems, all PCT applications will be held in electronic form, either by the applicant submitting an electronic version or by scanning/OCR, etc. Thus, there will always be an electronic version which can be given for access.]

(b) If access to confidential data by electronic means is allowed, this access shall be secure and shall be available to authorized viewers only. Measures to assure the protection of these files from alteration shall be taken.

[Section 709(b), continued]

[COMMENT: The published case files and dockets of the Offices are public records where so provided by the PCT. Regardless of the electronic filing process that is adopted, adequate public access outside the Office is recommended. If an Office chooses to image its paper submissions and combine them with electronically filed documents to form a single electronic case file, then the public should have electronic access to all documents in the electronic case file, whether or not they were originally submitted in electronic form. This does not require extensive conversion of non-electronic filings if the Office chooses not to maintain a single electronic case file for all its filings.]

(c) Access to computers used for electronic filing shall not jeopardize the security of other Office networks and applications.

[COMMENT: The public must not be permitted access to internal Office networks or computers upon which Office operations are performed. One way to isolate Internet web sites that may be used for electronic filing is to use an Internet firewall. Additional network security methods can be combined with a firewall to further enhance network security. Similar security precautions should be taken for electronic filing implementations.]

Section 710

Applicability to National Offices and Intergovernmental Organizations

The provisions of this Part shall apply *mutatis mutandis*, to the extent applicable, to [US Changes] [all Offices processing](#) any document relating to the international application which is received in electronic form by any national Office or intergovernmental organization.

US COMMENT: The wording should apply to Offices rather than documents. A suggestion is inserted above. The original meaning of this section was to extend the rules of this part (AIs 700+) to all documents associated with the IA, not just the IA parts as submitted, but it has evolved over many revisions to now apply to Offices.

[COMMENT: This provision makes the provisions of Part 7 applicable, in particular, to International Searching Authorities and International Preliminary Examining Authorities.]

Section 711

Requirements of Designated Offices

(a) No designated Office which accepts documents in electronic form shall, subject to this Part and Rule 51*bis*, require compliance with requirements relating to international applications submitted in electronic form other than those contained in this Part and Annex F.

*[COMMENT: The goal of paragraph (a) is to make clear that, while compliance with the standard in Annex F is not mandatory for applicants, such compliance is very attractive for applicants since compliance means that only certain, specified adjustments required to be made by designated Offices for national phase entry. The making of this paragraph subject to Rule 51*bis* is to provide that PCT Contracting States can require certain categories of further evidence in relation to information which the applicant provided in his application when filed in electronic form in accordance with the standard in Annex F. Rule 51*bis* will need to be amended to allow designated Offices to require:*

(a) an “enhanced electronic signature” in the national phase where a “basic electronic signature” was employed when the application was filed;

(b) the furnishing of a “recognized certificate” in the national phase where an “ad hoc certificate” was employed when the application was filed. Consistent with Art. 11(3), 11(4) and 27(1) PCT, designated Offices cannot question the validity of the signature mechanisms used in the international phase provided they are selected from the list specified in the standard. It remains an objective that there be one type of signature that is acceptable to all ROs and DOs. A step in this direction may be the acceptance by all ROs of the EES (Digital Signature). The software being created by the International Bureau (see the PCT Assembly report, document PCT/A/28/5, paragraph 32) will support all acceptable types of signature.]

US COMMENT: We are reading this to mean that a designated Office may not question the validity of an International Application signed with a basic e-signature even though the national law of the DO requires an enhanced electronic signature.

Thus the correspondence with the receiving Office in the International phase will be under the electronic signature and records rules of the receiving Office. When the designated Office commences the national phase it will not question any of the signatures on documents received in the national phase, but it will carry on all further electronic correspondence under its own rules for electronic signatures and records.

[Section 711(a), continued]

We are sympathetic to the ideal of having one type of signature acceptable to all PCT Offices so that applicants do not have to change signature protocols when entering national phase. However, there are a number of issues, for example cross certification of CAs and the acceptance of electronic signatures, that must first be resolved.

(b) Each designated Office which accepts the filing of international applications in electronic form shall notify the International Bureau of the type of electronic signature and the classes of digital certificates from among those set out in Annex F which are accepted by it. The International Bureau shall promptly publish in the Gazette any such notifications.

[COMMENT: See the PCT Assembly report, document PCT/A/28/5, paragraph 45. Receiving Offices notify this same information under Section 703(c)(i)].

(c) Any designated Office may request the International Bureau, or where applicable, the receiving Office, to furnish to it a copy on paper of any document which was filed or is stored in electronic form.

[COMMENT: This paragraph is designed to cover the situation of designated Offices requiring paper documents from the International Bureau (see PCT Assembly report, document PCT/A/28/5, paragraph 27) and also ISA and IPEAs as stated in EPI comments (document PCT/A/28/3 Add. 2, Annex IX (EPI)). As noted in the Comment to 702(a), in accordance with paragraph 27 of the Assembly report, paragraph (a) would require any designated Office which receives documents on paper from the International Bureau which were originally filed in electronic form to give full force and effect to such documents, subject to the Office's being satisfied as to the authenticity of the document.]

[End of document]