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ASSEMBLY

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PROGRESS REPORT ON THE PCT AUTOMATION ("IMPACT") PROJECT

Document prepared by the International Bureau

1. In March 1998, the Assemblies of Member States of WIPO approved the PCT automation project now called IMPACT (Information Management for the Patent Cooperation Treaty). The Assemblies also agreed that the Assembly of the PCT Union should be kept informed of the development of the automated system (see documents A/32/5 – WO/BC/18/5 and A/32/7). The present document¹ contains a progress report on the development of the project and other relevant information. (Documents PCT/A/27/2 and PCT/A/28/4² contain the previous progress reports to the Assembly.)
2. Following the completion, in December 1999, of the tender process as described in progress report PCT/A/27/2 and the selection of a consortium of three companies under the leadership of Xerox Professional Services (XPS) (United Kingdom), work on the project has begun. (The other companies in the consortium are Cap Gemini Ernst & Young (France) and Hewlett Packard (Switzerland).) Project management has been working on establishing a formalized project management methodology as a matter of priority. In parallel, as described in progress report PCT/A/28/4, experts from the consortium and the core WIPO team of information technology specialists, business analysts and user representatives have begun work on the analysis and design phase of the project. In addition, since assuming

¹ WIPO's Internet site is at <http://www.wipo.int>. For this and other working documents for the Assembly's session, see http://www.wipo.int/eng/document/govbody/wo_pct/index_29.htm.

² Available on WIPO's Internet site http://www.wipo.int/eng/document/govbody/wo_pct/pdf/pct28_4.pdf

responsibility for the development of e-filing standards in January 2000, the IMPACT team has been progressing on this activity. The following three sections give an update on each of these activities.

IMPACT PROJECT MANAGEMENT

3. Since the beginning of the year the IMPACT Project team has focused its project management activities on the design of the IMPACT Project Management Framework. As previously reported, this effort is based on the Project Management Institute's (PMI) recommendations with respect to best practices in project management. It comprises the following main elements (see Annex I for an overview of the IMPACT Project Management Framework):

– The *IMPACT Quality Procedures* under which all IMPACT processes will be managed. The main procedure, the IMPACT Project Management Procedure, references the other quality procedures. A draft version of this procedure is currently being reviewed. Other quality procedures are or will shortly be available in the following areas:

- General procedures: IMPACT Document Review and Approval, IMPACT Document Support & Identification Procedure;
- Planning & control procedures: IMPACT Estimation Procedure, IMPACT Quality Assurance Procedure (QAP), IMPACT QAP Deviations Management Procedures, IMPACT Issue/Problem Procedure, IMPACT Change Control Procedure, IMPACT Configuration Management Procedure, IMPACT Risk Management Procedure;
- Testing & acceptance: IMPACT Testing Procedure, IMPACT Acceptance Testing Procedure, IMPACT Metrics Guideline.

– The *IMPACT Global Project Planning Documents*, which include the IMPACT Project Plan, the IMPACT Global Change Management Plan and the IMPACT Global Architecture Design.

– The *IMPACT Implementation Phases Planning Documents*. To avoid possible adverse effects on day-to-day operations within the Office of the PCT, IMPACT will be delivered in phases (the first one being the IMPACT Communication System (see below for details)). The IMPACT Project Management framework describes three types of planning documents for those phases:

- Phase Specification documents, designed by the IMPACT Project team, which include a Phase Scope, a Phase Implementation Plan, User Requirements, plus necessary updates to the IMPACT Global Change Management Plan and the IMPACT Global Architecture Design.
- Phase Development Plan, designed by the consortium, which provides detailed development and deployment tasks, based on the selected Software Development Life Cycle method used. The plan will describe all activities under the consortium's responsibility, including prototyping, development, hardware and software procurement, unit and integration testing, plus training and documentation design. It will also include work and schedule estimates, resource plan, assumptions and dependencies with WIPO activities. At the time of preparation of this report, this plan is being drafted for the IMPACT Communication System

(phase one of the IMPACT Project; see below); it will be made available to the Assembly during its session.

- Phase Testing & Acceptance Plans, designed by the IMPACT Project team, to specify user and system testing done by the IMPACT Project team, plus specific acceptance testing.
- The *IMPACT Execution and Control* environment, which is used to execute the IMPACT Project Plan, the IMPACT Phase Implementation Plans and the IMPACT Change Management Plan using the IMPACT Quality Procedures.

4. An IMPACT Project Document Repository based on the Documentum 4i software, which has been selected for the IMPACT system itself, has been established, providing for centralized storage of all documentation being produced on the IMPACT Project.

5. According to the IMPACT Project Plan, the system will be implemented in three phases, reflecting the existence of three relative distinct components of the system:

- The Communication System (see below for details)
- The IB (International Bureau) System
- The RO/IB (Receiving Office of the International Bureau) System.

6. Within each phase, software will be developed following an iterative approach, principally because this allows for user requirements to be refined in the light of experiences gained through earlier iterations. By judiciously planning the order of iterations, it is furthermore possible to reduce project risk by testing the validity of design assumptions. This is to be done in the order of the severity with which potential errors in these assumptions would impact the project. This makes it possible to hedge against the risk that work done on the basis of assumptions that are found to be erroneous at a later stage will have to be redone at a point when remedial action may require extensive and costly reworking. The order in which the main phases of the project will be implemented is designed to further reduce risk as well as to bring early benefits to external users.

7. In particular, the selection of the Communications System as the first phase of the project to be implemented is based on the following considerations. During this phase substantially all the hardware infrastructure for the entire IMPACT system will be put in place. The early stages of this rollout will affect a relatively small number of users, who for operational purposes will always have recourse to their current work procedures in the event of any problems. By staging the implementation of the system it is possible to avoid the very risky "big bang" approach, when substantially the entire system is rolled out in one go.

8. The completion of the project is expected to take three years starting at the beginning of this year. However, based on experience with multi-year projects, contingency plans have been made in case it should take longer than expected. At this stage, the plan represents a top down view of the project. To ensure that it is realistic, it is currently in the process of being validated through the development of detailed project plans for each of the project phases. A summary of the project plans will be submitted to the Assembly in an addendum to this document.

PHASE ONE OF THE IMPACT PROJECT: IMPACT COMMUNICATION SYSTEM

9. The objective of this first phase of the IMPACT Project is to establish a new system for the communication of certain PCT-related documents (such as PCT pamphlets, copies of priority documents, various PCT Forms and, under Chapter II of the PCT, international preliminary examination reports and any English translations thereof) to designated/elected Offices, International Searching Authorities, International Preliminary Examining Authorities and/or national Offices of PCT Contracting States, as outlined below.

Communication of certain documents to Offices in their capacity as designated/elected Offices.

10. *Present situation.* It is recalled that, under the PCT, all designated/elected Offices are entitled to receive from the International Bureau, in connection with each international application in which they are designated/elected, various documents, namely, the PCT pamphlet (published international application and international search report) (PCT Article 20 and PCT Rule 47.1), copies of priority documents (PCT Rule 17.2), various PCT Forms and, under Chapter II of the PCT, the international preliminary examination report and any English translation thereof (PCT Article 36 and PCT Rule 73). At present, these documents are sent by the International Bureau to designated/elected Offices in paper form.

11. Many designated/elected Offices have decided to waive the systematic receipt of those documents in order to avoid having to deal with large quantities of paper relating to international applications which may not subsequently enter the national phase before those Offices, and instead have opted to receive such documents only upon specific request in relation to particular international applications, for example, those for which the applicant has performed the necessary acts for entering the national phase of processing before the Office concerned (so-called "Communication On Request").

12. The remaining designated/elected Offices (that is, those Offices which have not waived the systematic receipt of those documents) systematically receive all documents during the international phase relating to each international application in which they are designated (so-called "Systematic Communication"). Although many of these Offices would have preferred to opt for Communication on Request, the International Bureau has not, until now, been in a position to offer this service to those Offices which have a significant number of national phase entries, given that the International Bureau's current paper-based environment is not equipped to handle large numbers of requests for documents on a case-by-case basis.

13. *Future scenario.* As mentioned above, under the first phase of the IMPACT Project, the International Bureau is currently establishing a new automated system for the communication of certain documents to Offices and international Authorities ("IMPACT Communication System"). Under this system, certain documents, such as pamphlets, copies of priority documents, international preliminary examination reports and translations thereof, and certain PCT Forms, will be available at the International Bureau in electronic form. As a result, the International Bureau will be in a position to offer several new options as to the form and format in which, and the means by which, those documents could be communicated to designated/elected Offices, as an alternative to receiving paper copies. It is envisaged that any designated/elected Office, regardless of whether it has opted for Systematic Communication or Communication on Request, would be able to choose from among the following options, bearing in mind that a final decision as to which forms, formats and means

will become available depends largely on the finalization of the PCT Electronic Filing Standard³ (see paragraphs 18 to 22, below):

- *form*: paper, electronic;
- *format*: standard image formats such as TIFF or JPEG; portable formats such as PDF (industry de facto standard); data formats such as XML;
- *means*: physical mailing (of paper document or electronic data carrier such as CD-ROM/DVD), fax, e-mail with document attachment, on-line viewing via a browser (including the ability to download and print documents locally), bulk electronic document exchange (including both “push” (where the International Bureau initiates the transfer to the Office) and “pull” (where the Office initiates the transfer from the International Bureau)).

14. Following the implementation of the IMPACT Communication System, the International Bureau will be in a position to offer all designated/elected Offices the possibility of making use of the Communication on Request system. Consequently, once the IMPACT Communication System becomes operational, any designated/elected Office, if it so wishes, will be able to waive the systematic receipt of documents related to all international applications in which it is designated/elected and opt instead for Communication on Request, thereby eliminating the burden of dealing with large quantities of paper relating to international applications in which the Office concerned is designated/elected but which may subsequently not enter the national phase before that Office.

15. With regard to PCT Forms, at present, any Office which uses the current Communication on Request system may request, in addition to the documents relating to a particular international application, copies of several PCT Forms (that is, those PCT Forms relevant to the application which would have been sent systematically to that Office during the international phase had it not waived the requirement to receive them on a systematic basis). Under the IMPACT Communication System, it is proposed to replace the sending of copies of those individual PCT Forms by a single “PCT International Application Status Form” which combines all the data appearing on those individual forms, up-to-date as on record at the International Bureau on the date on which the request for communication is processed. Each designated/elected Office would be able to customize the content of that Form by choosing, according to its own needs and requirements, from all the data that designated/elected Offices, under the PCT and the Regulations under the PCT, are entitled to receive, only those data which it actually wishes to receive. The International Bureau would take that “Office profile” into account when “assembling” the PCT International Application Status Form and would send the customized Form, together with the requested documents, to the Office concerned. At present, it is not envisaged to use the PCT International Application Status Form for the communication of information to Offices which have chosen to receive all documents systematically during the international phase; as at present, it is envisaged that those Offices would continue to receive individual PCT Forms at the time provided for in the PCT and Regulations.

³ The full title of the standard is: “Annex F, Standard for Electronic Filing, Processing, Storage and Records Management of International Applications”

Communication under PCT Rule 87 of PCT pamphlets to Offices in their capacity as national Offices of PCT Contracting States, International Searching Authorities and International Preliminary Examining Authorities

16. *Present situation.* Under PCT Rule 87, any International Searching Authority, any International Preliminary Examining Authority and any national Office of a PCT Contracting State (hereinafter referred to as “Office”) is entitled to receive from the International Bureau, free of charge, a certain number of copies of pamphlets. At present, while some Offices still prefer to receive paper copies of such pamphlets, the majority of Offices have opted to receive instead, free of charge, ESPACE WORLD CD-ROMs containing PCT pamphlets.

17. *Future scenario.* Once the IMPACT Communication System becomes operational, the International Bureau will be in a position to offer the following new options as to the form and formats in which, and the means by which, pamphlets can be communicated under Rule 87 to Offices (however, as mentioned above, a final decision as to which electronic document formats will become available depends largely on the finalization of the PCT Electronic Filing Standard):

- *form:* paper, electronic;
- *format:* standard image formats such as TIFF or JPEG; portable formats such as PDF (industry de facto standard); data formats such as XML;
- *means:* physical mailing (of paper document or electronic data carrier such as CD-ROM/DVD), e-mail with document attachment, bulk electronic document exchange (including both “push” (where the International Bureau initiates the transfer to the Office) and “pull” (where the Office initiates the transfer from the International Bureau)).

PCT ELECTRONIC FILING

18. During the fifth session of the Plenary of the Standing Committee on Information Technologies (SCIT), which took place in Geneva from July 10 to 14, 2000, the International Bureau provided a progress report on PCT Electronic Filing as document SCIT/5/3⁴ (attached as Annex II to this document). In addition, discussions took place in a PCT Informal Consultation Meeting on Electronic Filing, held in Geneva from July 11 to 14, 2000, on proposed modifications of the PCT Administrative Instructions relating to the electronic filing, processing, storage and records management of international applications as well as proposed technical standards in Annex F to the Administrative Instructions (see documents PCT/AI/1 Add.2 Prov., PCT/AI/1 Add.3 Prov., PCT/AI/1 Add.4 Prov., PCT/AI/1 Add.5 Prov. and PCT/AI/1 Add.6 Prov.⁵).

⁴ This document is available on WIPO’s Internet site at <http://www.wipo.int/eng/general/scit/meeting/5/3.pdf>

⁵ These documents are available on WIPO’s Internet site at http://www.wipo.int/eng/meetings/2000/pct_ef/index.htm

19. The informal consultation meeting, attended by delegations from 49 PCT Contracting States and eight other States, and representatives of five intergovernmental organizations and two non-governmental organizations, was held in Geneva from July 11 to 14, 2000. The meeting made significant progress toward the establishment of the legal framework and technical standards for PCT electronic filing. In particular, near agreement was reached on a set of common procedures for use by any PCT applicant who has access to a personal computer and the Internet, and by PCT receiving Offices, using WIPO-furnished software.

20. In particular, agreement was reached on questions relating to the use of public key infrastructure (PKI) and on the use of digital certificates (which perform the function of authentication of identity) during both the international and national phases, as well as on many details of procedure and technical matters.

21. A further redraft of Part 7 and Annex F, prepared by WIPO, will be the subject of further consultations with Contracting States during the second half of 2000.

22. When the PCT provisions for implementing electronic filing have been finalized, the International Bureau proposes that the SCIT be asked to elaborate, on the basis of the PCT standard, generally applicable standards for electronic filing of patent applications (see document SCIT/5/10, paragraph 25).

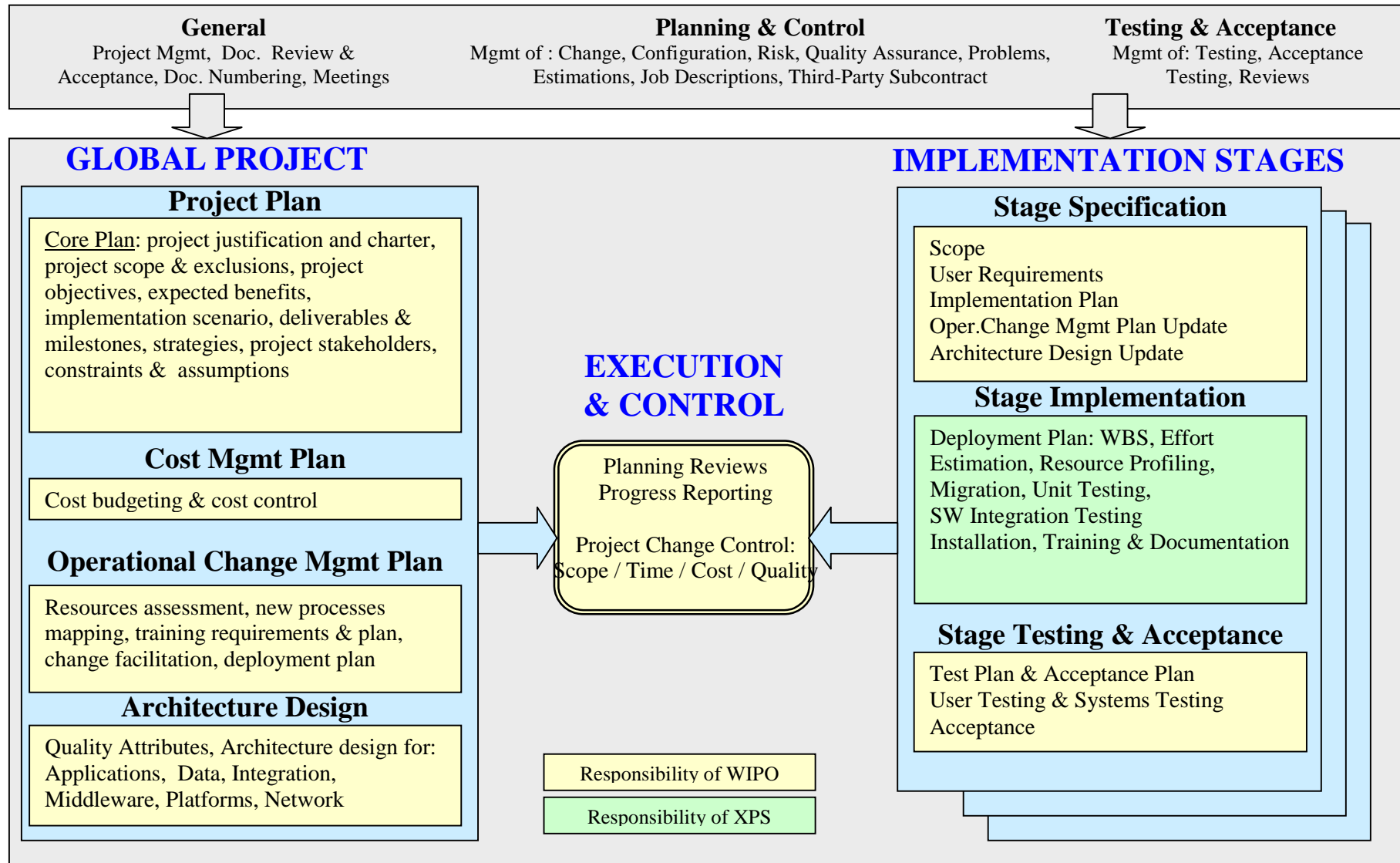
23. The Assembly of the PCT Union is invited to take note of the progress report on the IMPACT Project contained in this document.

Attachments: – Annex I (IMPACT Project Management Framework)
– Annex II (document SCIT/5/3 “IMPACT Project: Update on PCT Electronic Filing”)

[Annex I follows]

IMPACT PROJECT MANAGEMENT FRAMEWORK

IMPACT QUALITY PROCEDURES



[Annex II follows]

ANNEX I

PCT/A/29/2

WIPO



SCIT/5/3

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WORLD INTELLECTUAL PROPERTY ORGANIZATION
GENEVA

E

STANDING COMMITTEE ON INFORMATION TECHNOLOGIES

PLENARY

Fifth Session

Geneva, July 10 to 14, 2000

IMPACT PROJECT: UPDATE ON PCT ELECTRONIC FILING

Document prepared by the International Bureau

1. During the 28th (16th extraordinary) session of the PCT Union Assembly held in Geneva from March 13 to 17, 2000, the International Bureau provided a progress report on the PCT automation project IMPACT (Information Management for the Patent Cooperation Treaty) (see document PCT/A/28/4⁶.) In addition, discussion took place on amendments to the PCT Administrative Instructions required to enable electronic filing and processing of international applications. These discussions were based on document PCT/A/28/3 (a provisional version of which was notified to SCIT Task Force members on December 22, 1999), and comments subsequently received and published as documents PCT/A/28/3 Add.2, PCT/A/28/3 Add.3, PCT/A/28/3 Add.4, and PCT/A/28/3 Add.5.

⁶ This and other documents of the PCT Assembly's session are available on WIPO's Internet site at http://www.wipo.int/eng/document/govbody/wo_pct/index_28.htm.

2. At the fourth Plenary session of the Standing Committee on Information Technologies (SCIT) in December 1999, an Action Plan⁷ for PCT on-line filing was adopted. At the same session it was agreed that this Action Plan would be subject to review in the first quarter of 2000.

3. It is recalled that PCT electronic filing, which will be expanded to go beyond only on-line filing, to include other electronic media, for example, CD-ROM, DVD, diskette, etc., was from the outset foreseen to be part of the IMPACT Project, (see document A/32/5, paragraph 1⁸) which stated that one of the principle objectives of the PCT automation project would be:

“to create and make available to receiving Offices and PCT applicants electronic filing software.”

4. As such, the IMPACT Project team will be responsible for fully developing the PCT electronic filing project plan, taking into account the Action Plan for PCT on-line filing. Once the PCT electronic filing project plan has been finalized, including any additional information resulting from the current session of the SCIT Plenary, it will be made available to PCT Contracting States for them to express their views. In this regard, the PCT Assembly noted that the portion of the IMPACT Project plan relating to PCT electronic filing would supersede the present SCIT Action Plan for PCT On-Line Filing (see document PCT/A/28/5, paragraph 22(ii)).

5. During the process of finalizing the PCT electronic filing standards, the IMPACT Project team will continue to utilize the expertise of the SCIT Task Force established for that purpose. Recognizing that the SCIT membership also has a strong interest in PCT automation, the International Bureau will continue to keep the SCIT informed of progress made in the IMPACT Project.

6. Additionally, it is mentioned in the report of the 28th session of the PCT Assembly that (document PCT/A/28/5, paragraph 33):

“the International Bureau indicated that the task of defining the requirements for and ultimately producing the PCT electronic filing software would be undertaken in consultation with the PCT Contracting States, the Trilateral Offices, the SCIT Task Force and user representatives. The requirements of potential users of such software (both Offices and applicants) would be identified and documented at the outset in order to ensure that they were addressed by adopting appropriate technical solutions.”

7. In accordance with the commitment listed in paragraph 2 above, the International Bureau has continued with the consultation process. In particular:

⁷ The SCIT Action Plan is reproduced as an attachment in document PCT/A/28/3 Add.1 and is available on WIPO's Internet site at http://www.wipo.int/eng/general/scit/project/p8/an_6.pdf.

⁸ This document is available on WIPO's Internet site at http://www.wipo.int/eng/document/govbody/wo_gb_ab/a32_5.htm.

(i) from April 5 to 7, 2000, a delegation from the International Bureau visited the United States Patent and Trademark Office (USPTO). During this visit, the requirements for electronic filing software were discussed. Furthermore, the USPTO shared with the International Bureau its understanding of applicants' requirements in relation to electronic filing software;

(ii) a representative of the International Bureau attended the MIPEX (Message based Industrial Property Information Exchange) Plenary Meeting which was held on May 12, 2000. At this meeting, the International Bureau observed presentations of activities in the area of electronic filing relating to MIPEX; and

(iii) the International Bureau is currently drafting and preparing to circulate a survey to establish user requirements in the areas of electronic filing and enterprise functionality for the PCT-EASY software.

8. Also in the report of the 28th session of the PCT Assembly, it is noted that the International Bureau envisaged that (document PCT/A/28/5, paragraphs 36(a); 36(b) and 36(c)):

“(a) the IMPACT Project team would coordinate and provide leadership in the redrafting of Annex F in consultation with interested Offices, in particular, drawing on the expertise of the Trilateral Offices, as they had delivered the first draft of Annex F. The redrafting exercise would take into account comments made by the SCIT Task Force, and the IMPACT Project team would continue to coordinate its work with the Office of the PCT; at the same time, the Office of the PCT would redraft Part 7, coordinating its work with the redrafting of Annex F;

“(b) once redrafted, Annex F would be the subject of consultation with all PCT Contracting States and Authorities, with the members of the SCIT Task Force and with user representatives; redrafted Part 7 would also be the subject of consultation with all PCT Contracting States and Authorities and with user representatives;

“(c) when there was agreement on both Part 7 and Annex F, they would both be promulgated; Annex F would then become the PCT standard and would be referred to SCIT for adaptation and adoption as a WIPO Standard; the promulgation of Part 7 would mean that Rule 89bis would enter into force, thus legally enabling the electronic filing of international applications under the PCT with those receiving Offices which had notified their acceptance of such filings.”

9. The International Bureau participated in a meeting of the Trilateral Working Group for Electronic Filing, which was held at the European Patent Office in The Hague from April 17 to 19, 2000. The purpose of this meeting was to discuss the redrafting of proposed new Annex F to the Administrative Instructions (entitled *Standard for Electronic Filing, Processing, Storage and Records Management of International Applications under the Patent Cooperation Treaty (PCT)*). At the meeting responsibilities for redrafting various elements of this document were allocated. Subsequently, and in accordance with the commitment mentioned in paragraph 8(a) above, the International Bureau has produced a new appendix to Annex F, entitled *Appendix 3, Electronic Filing Using Physical Media*, which contains the standards for filing electronically on physical media. The International Bureau has also contributed text for *Appendix 1 of Annex F, Draft PCT Technical Standard for the On-line Exchange of IP Documents in a PKI Environment*, which describes the overall model for filing on-line using PKI (Public Key Infrastructure). Redrafted Part 7 of the Administrative Instructions was posted on WIPO's Internet site on May 11, 2000⁹. A redraft of Annex F will be posted as soon as it is available¹⁰.

10. In accordance with paragraph 8(b) of this document, an informal consultation on the redrafted documents has been convened and will take place in parallel with the July 2000 meeting of the SCIT Plenary.

11. The SCIT Plenary is invited to take note of the update on PCT electronic filing contained in this document.

[End of Annex II and of document]

⁹ This document is available on WIPO's Internet site at http://www.wipo.int/eng/meetings/2000/pct_ef/index.htm

¹⁰ This was done in June 2000 (this footnote did not appear in document SCIT/5/3).