

Patent Cooperation Treaty (PCT) **Committee for Technical Cooperation**

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EXTENSION OF APPOINTMENT OF THE STATE ENTERPRISE “UKRAINIAN INTELLECTUAL PROPERTY INSTITUTE” AS AN INTERNATIONAL SEARCHING AND PRELIMINARY EXAMINING AUTHORITY UNDER THE PCT

Document prepared by the International Bureau

1. All of the existing International Authorities were appointed by the PCT Assembly for a period ending on December 31, 2017. In 2017, the Assembly will therefore need to make a decision on the extension of the appointment of each existing International Authority that wishes to seek an extension of its appointment, having first sought the advice of this Committee (see PCT Articles 16(3)(e) and 32(3)). Information concerning this process and the role of the Committee is set out in document PCT/CTC/30/INF/1.
2. On February 27, 2017, the State Enterprise “Ukrainian Intellectual Property Institute” submitted its application to extend its appointment as an International Searching Authority and International Preliminary Examining Authority under the PCT. This application is reproduced in the Annex to this document.
3. *The Committee is invited to give its advice on this matter.*

[Annex follows]

APPLICATION OF THE STATE ENTERPRISE "UKRAINIAN INTELLECTUAL
PROPERTY INSTITUTE" FOR EXTENSION OF APPOINTMENT
AS AN INTERNATIONAL SEARCHING AND
PRELIMINARY EXAMINING AUTHORITY UNDER THE PCT

BACKGROUND

1. According to Article 9 of the Agreement between the State Intellectual Property Service of Ukraine and the International Bureau of the World Intellectual Property Organization in relation to the functioning of the State Enterprise "Ukrainian Institute of Intellectual Property" as an International Searching Authority and International Preliminary Examining Authority under the Patent Cooperation Treaty, State Enterprise "Ukrainian Institute of Intellectual Property" (hereinafter - Ukrpatent) began to perform its functions as an International Searching Authority and International Preliminary Examining Authority on February 5, 2016.

2. Ukrpatent is founded under the public property regime and is managed by the State Intellectual Property Service of Ukraine.

3. According to the Regulation on the State Intellectual Property Service of Ukraine № 658, approved by the Cabinet of Ministers of Ukraine on November 19, 2014, the State Intellectual Property Service of Ukraine authorized Ukrpatent to act as the examination institution within the limits, provided by laws of Ukraine in the field of intellectual property.

4. Ukrpatent has the following purposes:

1) meeting social needs in the state expert assessment of compliance of objects of intellectual property rights with the conditions for granting them legal protection, set out in legislation, and information regarding intellectual property rights;

2) providing information and analytical support to the development and functioning of the state system of intellectual property protection;

3) submitting to the State Intellectual Property Service of Ukraine the scientifically based proposals for the development of relations in the field of intellectual property, improvement of the legal, methodological, information-analytical, financial and economic ensurance of these relations;

4) meeting social needs in right to the results of intellectual and creative activity or other object of intellectual property rights, defined by the normative acts.

5. Ukrpatent has, in particular, the following scope of operation:

scientific and technical examination of applications regarding intellectual property rights (hereinafter - applications), issuance of relevant expertise conclusions, implementation of measures of improvement of the efficiency and quality of examination;

preparation of information on applications, on granting of patents and certificates;

preparation for publication of descriptions of patents for inventions and patents for utility models;

preparation of information for the state registration of patents and certificates;

preparation of the relevant materials for the issuance of patents, certificates and statements from public registers;

computerization and automatization of operation processes of the state system of intellectual property protection, creation of information infrastructure, development of special software and databases;

creation, updating and maintenance of the patent information database, necessary for examination of applications and reference and search tools;

information search on the claimed intellectual property rights, preparation of the relevant reports and provision of experts with access to the necessary information sources;

ensuring the formation of the funds of the national patent documentation in the organs of the state system of scientific and technical information of Ukraine;

performance within its powers of the international treaties of Ukraine on intellectual property matters, participation on behalf of the State Intellectual Property Service of Ukraine in their drafting, conclusion and enforcement;

search in the relevant databases of Ukrpatent in order to fulfill its functions as an International Searching Authority and International Preliminary Examining Authority under the Patent Cooperation Treaty.

6. Ukrpatent is a modern, powerful and developed enterprise with the best human resources and technical capabilities to perform functions of the International Searching Authority and International Preliminary Examining Authority that can not only provide quality services, but also interact with the international intellectual property system as a whole.

7. The functioning in Ukraine of a body with an international status of ISA and IPEA has become a confirmation of the high level of legal protection of intellectual property and has contributed to the improvement of the business environment, the quality of the protection of intellectual property and intellectual security of foreign trade activities of the enterprises of our country.

8. In view of the aforesaid, industrialists and entrepreneurs of Ukraine and government authorities consider the status of Ukrpatent as ISA/IPEA as an important step in strengthening the innovation component of Ukraine's economy and positioning the country as an active participant in international relations in the field of intellectual property.

UKRPATENT'S PARTICIPATION IN THE PCT SYSTEM AND BENEFITS FOR PCT SYSTEM

9. As of May 1, 2016 (since 1992) a total of 489,029 titles of protection have been registered, 118,141 of them being patents for inventions.

10. Within the period from 1992 to 2016, over 116,100 applications for inventions were submitted; among them nearly 39,600 were those which were filed under the PCT procedure by foreign applicants and entered the national phase.

11. In 2016, similarly to previous years, the highest filing activity was displayed by applicants from the USA (415 applications or 24.8 per cent), Switzerland (241 applications or 14.4 per cent), Germany (209 applications or 12.5 per cent), France (91 applications or 5.4 per cent), Great Britain (74 applications or 4.4 per cent), Japan (64 applications or 3.8 per cent), Luxembourg (57 or 3.4 per cent), the Netherlands (53 or 3.2 per cent), Italy (45 applications or 2.7 per cent), and Russian Federation (34 applications or 2 per cent).

12. The number of applications coming from these countries constituted almost 79 per cent of the total amount of the applications filed under the PCT procedure.

13. Within the period from 1992 to 2016, almost 1,700 applications from national applicants were filed for patenting inventions under the PCT procedure in foreign countries. Among them, over 827 applications (47.8 per cent) were filed in 2011-2016.
14. Within the period from 1992 to 2016, over 73,300 patents for inventions were registered. Among them almost 21,700 patents were granted on the basis of applications filed under the PCT procedure.
15. In 2016, some 4,000 applications for inventions were received, approximately 40 per cent of them being PCT applications (national phase).
16. During 2016, 1,481 PCT applications entered the national phase. In 2016, SIPSU as receiving office received and considered 153 international applications filed by domestic applicants.
17. In the course of a year around 3,900 examinations are carried out by the examiners.
18. The statistical figures of the Ukrpatent activities displayed above demonstrate its active role in the realm of international patenting.
19. From February 5, 2016, Ukrpatent started operating as an International Searching Authority and as an International Preliminary Examination Authority.
20. From the said date till January 24, 2017 the overall quantity of international applications filed to Ukrpatent as a receiving office amounted to 143.
21. As of January 26, 2017, Ukrpatent was chosen as an ISA in 33 applications. The filing fee was paid for 22 applications; 18 international search reports and ISA written opinions were drawn up and forwarded to the applicants and to the IB of WIPO; four applications are being examined. Seven applications expect filing fee payment.
22. Also, during the said period three demands for international preliminary examinations were filed to Ukrpatent as an IPEA. In January 2017, a preliminary report on patentability was forwarded to the applicant and the IB of WIPO.
23. Two applications are now being examined.
24. The use at the Ukrpatent of English, German, French and Russian languages as working languages as well as capability and intention of the Ukrpatent to provide high-quality services in search and examination in the shortest term will allow to turn to the Ukrpatent, by their discretion, applicants from any countries– PCT members.
25. The fulfillment of the tasks charged to this international authority, as well as the high quality of reports will be ensured by the examiners having considerable experience in a wide range of PCT-related matters.
26. Currently, there is sufficient examiner resource for search and examinations. In case of workload increasing required number of new examiners will be recruited and proper training for them will be provided not affecting quality and terms of search and examination.
27. The management of Ukrpatent analyzes the examiners' workload together with Personnel department determines needs for recruitment of new examiners and training of existing ones.
28. The general term of the formal and substantive examination of patent applications is 16 months.
29. Such processing time is constant for a few years and Ukrpatent supports it at that level.

30. The achievement of such terms with simultaneous maintaining high quality of searches and examination is due to the attention that is paid to the internal training of examiners. To new examiners tutors are appointed, regular trainings for examiners are performed at different levels, e.g. for study all modern and highly secured search systems (like EPOQUENet) to optimize and develop the best strategies for search.
31. Examiner meetings considering all appeals in cases of complains are held regularly, also the best practices of leading patent offices of the World, are used during searching and examination process.
32. At Ukrpatent much attention is paid to quality matters. The three leveled system of quality control of searches and examination process is introduced in Ukrpatent: at the Head of division, Head of department and Director in examination matters.
33. Also at these levels the processing time of applications and responding to requests is monitored.
34. Terms of applications examining, answers to incoming documents are monitored at that levels as well. All data of the monitoring are reported to the top management twice a year, instructions are developed on report bases, also workload of examiners and the distribution of applications are revised, and the need for new search systems or increasing the access to that available is analyzed.
35. Shorten the period the examination of applications while maintaining high quality search and examination is also due to a high level of process of automatization of examining process.
36. All of the above, undoubtedly, is sufficient to meet the needs when examining the array of national applications and will provide the possibility to deal with the growing number of international applications in the shortest time while keeping the high quality.
37. Extension of appointment of Ukrpatent as an International Searching Authority and International Preliminary Examining Authority is essential to avoid the possible delays in the review process of international applications, filed under the PCT.
38. This extension will facilitate the popularization of the PCT system in Ukraine and increase the number of PCT applications.
39. Exercising the functions of an International Searching Authority and International Preliminary Examining Authority, Ukrpatent continues to make a significant contribution to economic growth, competitiveness and creating innovation in the region and beyond, as well as the proper functioning of the PCT.

COMPLIANCE OF UKRPATENT WITH THE CRITERIA FOR THE EXTENSION OF APPOINTMENT AS AN INTERNATIONAL SEARCHING AUTHORITY AND INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

40. According to Rules 36.1 and 63.1 of the PCT Regulations, taking into account the Understanding with regard to the procedures for appointment of International Authorities, adopted by the PCT Assembly at its forty-sixth session, held in September 2014 (paragraph 25 of document PCT/A/46/6)) and paragraph 9 of the document PCT/WG/9/14, the following requirements are established:

1. at least 100 full-time employees with sufficient technical qualifications to carry out searches and examinations;
2. possession of, or access to, at least the minimum documentation referred to in Rule 34 of the PCT Regulations, properly arranged for search and examination purposes, on paper, in microform or stored on electronic media;

3. a staff which is capable of searching and examining the required technical fields and which has the language facilities to understand at least those languages in which the minimum documentation referred to in Rule 34 of the PCT Regulations is written or is translated; and

4. a quality management system and internal review arrangements in accordance with the common rules of international search and preliminary examination (defined by Chapter 21 of the PCT International Search and Preliminary Examination Guidelines).

41. Ukrpatent complies with all the established criteria.

42. In the following sections, information provided below refers to:

qualification and competence of the experts (to comply with the requirements set out in paragraphs (a) and (c) of the Rule 36.1 of the PCT Instruction;

access to documents for search and examination (to comply with the requirements set out in paragraph (b) of the Rule 36.1 of the PCT Instruction;

quality management system and mechanisms of internal control (to comply with the requirements set out in paragraph (d) of the Rule 36.1 of the PCT Instruction.

QUALIFICATION AND COMPETENCE OF THE EXAMINERS

General characteristics of examiners

43. The total number of examiners working full time and performing the examination of applications for inventions and patent information search for this purpose (including PCT applications examination) is 127 persons. All patent examiners have a specialist's/master's degree in technology or natural sciences; among them there are also six PhD degree holders.

44. All examiners have a second university degree in the intellectual property and a qualification level of intellectual property specialist or master.

45. All examiners are fluent in Ukrainian, Russian and English; some of the examiners also have sufficient knowledge of German, French, Spanish, Polish and Japanese.

46. The Department of Examination of Applications for Inventions, Utility Models and Integrated Circuit Topographies consists of the following divisions: Chemistry and Pharmacy, Physical and Chemical Technologies, Chemical and Biological Technologies, Physical and Technical Technologies and other subdivisions: Filing Date Fixing, Formal Examination, International Applications, Documentation Administration and the Quality Assurance and Improvement of Examination of Applications for Inventions, Utility Models and Integrated Circuits.

47. The search and examination processes are regulated according to the legislation of Ukraine, regulatory legal acts, relevant WIPO standards, PCT International Search and Preliminary Examination Guidelines for International Authorities.

Knowledge of languages

48. All examiners are fluent in Ukrainian, English and Russian; some of the examiners also have knowledge of German, French, Spanish, Polish and Japanese. Most of the examiners are able to use two foreign languages in their work.

Recruitment of staff

49. All examiners are qualified examiners in various fields of natural and technical sciences. They all graduated from such world-famous best universities of Ukraine as Taras Shevchenko National University, National Technical University of Ukraine "Kyiv Polytechnic Institute" etc.

Many of them have extended experience of working in the institutions of the Academy of Sciences of Ukraine, higher education institutions of Ukraine, various key industrial fields. Some of the examiners have the PhD degree which enables them to perform searches and examination on an outstandingly high level and have thorough knowledge in a wide scope of specific matters.

50. For provision of high-quality search and examination in the shortest terms the system of examiners' training is implemented at the Ukrpatent. It is obligatory for recruitment in Ukrpatent to have the second higher education in intellectual property.

Training and development

51. Newly recruited examiners are assigned a tutor from experienced senior examiners having the signature authority. Such tutors arrange trainings and check the work performed by junior examiners; they are also engaged in the training program concerning examination and searches, which is compulsory for junior examiners; the program comprises trainings on division and department levels, participation in the WIPO DL-101 course, introduction into the search databases used by examiners for patent information searches and practice searches in these databases.

52. Examiners participate in trainings held by WIPO, in webinars on examination and search, arranged by EPO and WIPO, in seminars on training matters and other events of on-line training dedicated to examination and patent information searches organized by EPO and WIPO as well as seminars regarding with optimization of EPOQUENet usage, and train the trainers of EPOQUENet; they also take part in other events regularly arranged by EPO on the matters of quality assurance in patent searches and examination and other examination and patent search-related matters.

53. The participation in the activities of the Working Groups of the IPC Union Committee of Experts under WIPO is also arranged on the ongoing basis.

54. The full attention is given to study visits and/or seminars organized by the WIPO to promote sharing experience and networking of representatives of PCT receiving offices on the matters of international applications proceeding, processing of international applications filed in the electronic form using the WIPO PCT-SAFE software and the use of electronic services (in particular, ePCT).

55. In order to keep the high level of knowledge in various natural and technical fields, our examiners regularly take part in seminars and conferences organized by the National Academy of Sciences and branch Academies of Sciences of Ukraine.

56. In addition to training of new examiners a full attention is given to examiners education at an internal level - a permanent study of examiners at levels of branch divisions and invention examination department is being held. This education is a regular practice. The education covers modern and secured search systems (i.e. EPOQUENet) for the best search strategy optimization and development, search and examination approach, complicated applications at examiner's councils discussions, new regulatory and methodical documents studies, etc. Examiner's councils are held regularly with the participation of the Director on examination matters, where all complains and appeals are considered.

57. The internal training system involves the best modern practices in search and examination of leading patent offices of the world, such as EPO, DKPTO and USPTO.

58. The examiners participate in training events arranged by said patent offices and WIPO, namely:

1. Regular participation in the WIPO on-line trainings:

DL-101 (general course) certificates were received by almost all examiners.

Regular participation in DL-320, DL-318, DL-301, DL-202, DL-204 (advanced level) courses.

2. On-going participation in on-line training dedicated to examination and patent information searches arranged by EPO, on-site training and other matters regarding optimization of EPOQUENet usage by examiners.

3. Events regularly arranged by EPO on the matters of quality assurance in patent searches and examination and other examination and patent search-related matters.

4. The ongoing participation in the activities of the Working Groups of the IPC Union Committee of Experts (arranged by WIPO).

5. Study visits and/or seminars arranged by the WIPO to promote sharing experience and networking of representatives of the PCT receiving offices on the matters of international applications proceeding, processing of international applications in the electronic form using the WIPO PCT-SAFE software and the use of electronic services (in particular, ePCT).

59. Events organized in Ukraine:

1. International Scientific and Practical Conference "Actual Problematic Issues of Intellectual Property".

2. Conferences, seminars, round tables and discussions organized, in particular, by the Ministry of Economic Development and Trade of Ukraine, National Academy of Sciences and branch Academies of Sciences of Ukraine.

3. Yearly seminars "Peculiarities of Applications for Inventions" and "The use of Paperless Information Technologies in the Processes of Gaining of Industrial Property Rights".

4. Training of examiners on the matters of examination and use of databases (STN, REAXYS, EPOQUENet, DWPI etc.) arranged in particular by the providers of mentioned databases.

5. Regional seminars organized with the aim of raising awareness of the Ukrainian public of the PCT system.

ACCESS TO DOCUMENTS FOR SEARCH AND EXAMINATION

60. The PCT minimum documentation is one of the most crucial factors and express conditions for ensuring the quality of examination of international applications. The main provisions as to the minimum documentation are set out in Rule 34.1 of the Regulations under the PCT according to Article 15(4) of the said Treaty.

61. Electronic information resources available at Ukrpatent cover patent documents from organizations and patent offices of the countries forming the PCT Minimum Documentation. A detailed list of patent and non-patent literature available to examiners from different sources has been submitted to the International Bureau and is available on request.

62. For over 20 years, acquisition of patent documents collections of foreign countries for the abovementioned resources has been carried out mainly through the cooperation with WIPO, exchange with the European Patent Office (EPO), the Eurasian Patent Office (EAPO) and the national offices. In 2003, under the Law of Ukraine "On the Protection of Rights to Inventions and Utility Models" Ukrpatent as an examining authority was declared to be the center of international exchange of publications that provides the legislative environment for the specified field of activity.

63. Electronic information resources available at Ukrpatent are regularly replenished.
64. Over the last years foreign patent documentation was continuously received within the international exchange on optical carriers which was used for replenishment of the electronic information resources of Ukrpatent (the Search Portal).
65. From the corresponding FTP-server the Search Portal was replenished by the data from the current issues of the regional patent information product of the CIS countries on CD-ROM – CISPATENT (published since 2002), which comprises, in particular, specifications to patents for inventions of the Russian Federation and the EAPO.
66. In view of the trend to cease publishing of patent documents on material carriers by some foreign offices Ukrpatent moved to the data exchange via FTP-servers with the following offices: with Rospatent – since 2014, with the JPO – since 2015; the EAPO provides access to its patent documentation through the nonpublic section of the Eurasian Patent Organization web portal since the second half of 2016, which provides for updating the Search Portal with patent documentation of the mentioned offices.
67. As by the end of 2016 production of the patent information product ESPACE UK will be discontinued, agreement has been reached with the UK Intellectual Property Office relating to provision of Ukrpatent with access to the published patent documentation (applications and patents) via the FTP-server of the Office.
68. National patent documents in the patent information collection are provided for in the form of the Official Bulletin "Promyslova Vlasnist" (Industrial Property) on paper (published since 1993) and on CD-ROM/DVD (published since 2005), specifications to patents of Ukraine for inventions on paper (published since 1993 thru 2011), which are also published on CD-ROM "Inventions in Ukraine" (published since 2005). National patent documents are also represented in the "Inventions" AS and the Digital Patent Library.
69. Within the last decade opportunities to access the PCT Minimum Documentation (patent documentation and non-patent literature) have considerably increased by means of free and commercial Internet resources, as their number, contents have increased and quality have improved. Thus, using these resources helps to considerably increase the quality of search.
70. Since 2007, foreign commercial information Internet resources are used at Ukrpatent which provide access to the PCT Minimum Documentation (patent documents and non-patent literature) and are accomplished with more complicated but highly efficient search tools, to compare with free resources. As of February 1, 2017, nine foreign commercial information Internet resources are used for examination purposes, access to which is provided under the appropriate agreements concluded by Ukrpatent.
71. For continuous use of the determined foreign commercial Internet resources works on timely renewals of agreements with foreign providers of commercial resources, that have expired, are carried out. Particularly, in 2016, a new agreement with Thomson Reuters (Professional) UK Ltd. for access to DWPI was concluded which shall remain in force until April 2018; as of February 1, 2017 renewals were provided at Ukrpatent to access the EPO's EPOQUE Net system, ScienceDirect ArticleChoice Service, IEEE Enterprise Content via IEEE Xplore, ACS Products, Electronic Products via Wiley Online Library.
72. For searches, the examiners use both free and commercial databases. But considering safety issues, now the main focus is on use of secure systems. One of such systems and the main search tool among the foreign Internet resources, which are used by examiners to ensure efficient and quality patent search within the substantive examination of applications for inventions and utility models, is the EPO's EPOQUE Net system since it contains patent documents from a large number of countries as required to meet the requirements relating to full

accessibility to the PCT Minimum Documentation for offices, which operate not in Japanese, Korean, Russian, or Spanish official language.

73. Access to EPOQUE Net for examiners has been provided since 2007 under the appropriate agreements concluded by Ukrpatent. In 2014-2016 the use of EPOQUE Net was provided under the agreement effective till December 31, 2016.

74. Currently, access to EPOQUE Net is provided from 6 workstations. Starting from 2013 the EPO implemented new price policy according to which a number of authorized EPOQUE Net users does not depend on workstation number. Consequently, the number of authorized EPOQUE Net users having permanent access to the said search system can be regulated depending on demand.

75. Examiners of Ukrpatent, who act as trainers of EPOQUE Net, undergo continuous training at the EPO. The system of internal training is implemented at Ukrpatent which involves the best practices of EPOQUE Net use. It allows to increase number of EPOQUE Net users at any time and to ensure proper level of qualification of such users.

76. In order to make the use of EPOQUE Net more advantageous, a permanent Working group was created, whose members exchange personal experience, process the information received on the EPO seminars and training sessions for EPOQUE Net users, develop the ways to improve the patent search strategy with the due account of the experience of the EPO and world leading patent offices.

77. Due to expiry of the EPOQUE Net access agreement on December 31, 2016, a set of works was carried out in 2016 aimed at concluding the new 4-year agreement providing access of examiners to the said system in 2017-2020.

78. Provision of the guaranteed access to EPOQUE Net by examiners under the new agreement for the specified term is also important due to the possibility to access the Derwent World Patent Index via EPO's database.

79. To provide information support for the examination of applications for inventions with non-patent literature, the list of which is agreed by International Searching Authorities under the Rule 34.1(b)(iii) of the PCT Regulations, public national and foreign Internet resources, in particular, electronic digital libraries and collections (digital primarily) of 7 largest national-level public libraries of Ukraine, 36 libraries of the specialized scientific institutions of the National Academy of Sciences of Ukraine, 8 libraries of scientific institutions of the Academy of Medical Sciences of Ukraine, 7 libraries of institutions of the Academy of Agricultural Sciences of Ukraine, 9 libraries at the lead higher educational institutions, etc., are also widely used, in complex with foreign commercial databases. Electronic copies of the ordered information sources, in particular, articles in periodicals, are received via the electronic document delivery system. Moreover, under the agreement concluded by Ukrpatent with the State Public Scientific and Technical Library of the Russian Federation, library-and-information service by means of electronic copies of documents was continued to boost the level and efficiency of examination procedure provision with non-patent literature.

80. Currently, in-house electronic information resources, subscribed foreign commercial Internet resources, free-of-charge foreign and national Internet resources as well as public collections of 77 largest national and specialized libraries (including national electronic digital libraries and electronic collections) used to carry out searches all taken together fully ensure access to the PCT Minimum Documentation at Ukrpatent.

International Patent Classification (IPC)

81. Ukraine joined the Strasbourg Agreement regarding the International Patent Classification which was ratified by the Law of Ukraine on December 2008 and took into force on April 7, 2010.
82. Therewith, taking into account the overall value of the International Patent Classification and its importance for all member states of the Paris Convention for the protection of Industrial Property, during the whole period of existence in Ukraine The State System of Intellectual Property Legal Protection (from the year 2000) the works concerning the translation of current versions to Ukrainian are carried out in order to fulfill the assigned obligations and to provide possibilities for the IPC usage by examiners and general national public in translation of the state language as the exclusive international classification system and the main element of search tool to the world patent information resources. For that, the permanent Working group of examiners and specialists in patent information and automation is formed under the leadership of the Director of in Examination of Ukrpatent.
83. Examiners have the opportunity to use the IPC-2017.01 in English and Ukrainian, which took into force from the January 1, 2017.
84. For a wide range of users the access to IPC-2017.01 is provided free of charge via Ukrpatent web-portal.
85. To further implement international commitments to Strasbourg Agreement, and due to the fact that WIPO annually introduces new IPC versions, the range of work directed to timely implementation of revised IPC in Ukrainian to be used in examination of inventions and by applicants, will be performed in future on permanent basis.
86. In the context of fulfillment of said work the examiners participate by on-going basis in sessions of the WIPO Working Group on IPC revision and the Committee of Experts, in particular, they participated in the 35th session of the Working Group and in the 48th session of the Committee of Experts.

Patent examination tools

87. In the mid-1990s the process of creating and developing information infrastructure began in the Ukrainian Patent Office. The computer network was built, new automation systems for processing IPRs applications and the storage system were implemented. With the introduction of a new "Inventions" automated system (AS) examiners obtained a powerful tool for the procedures and functions related to the examination of patent applications.
88. The first version of the "Inventions" AS did not exclude paper documents from circulation, so in the coming years the active work on the system development was carried out towards of the implementation of paperless processing of applications and electronic exchange. Due to the implemented measures at present the "Inventions" AS is a part of the integrated software and hardware complex, which provides electronic processing of applications for inventions and utility models. This automated system includes the entire administration process from applying for a patent, including search and examination features, has a broad set of checks, controls and mechanisms to facilitate the processing of patent applications and maintenance of patents.
89. Another important examination tool is the Search Portal. This tool is designed to automate searches. It has a multipurpose search engine and information viewers that allow for full-text search in selected sources or a group of sources and view the search results for each source.
90. The Search Portal is used by all examiners of the Division of Examination of Applications for Inventions and Utility Models, as well as specialists of other units. In the simultaneous mode 150 users have access to the portal.

91. More information about the "Inventions" AS and the Search Portal has been submitted to the International Bureau and is available on request.

IT System

92. Introduction of information technology at Ukrpatent is carried out in phases based on the concepts for automated systems development and introduction of information technologies that are developed for three-year periods.

93. Due to the implemented measures support of the application documents processing for intellectual property rights is performed by using the program-technical complex (PTC), located in the computer network of Ukrpatent. The PTC is an integrated information system that includes automated technological systems, databases, electronic document management system, electronic archive of documents, registration systems for incoming/outgoing documents, state registers, accounting of fees, forming data arrays for publications and others.

94. In recent years, particular attention has been focused on the implementation of the conceptual idea to move to the paperless office technology and the electronic exchange with counterparts, which resulted in the introduction of a number of technological measures and systems:

technological electronic documents management in all technological AS;

central electronic archive of documents;

general electronic documents management, integrated with technological ASs and with the central electronic document archive;

system of electronic filing of applications for intellectual property rights;

bilateral exchange technology for electronic documents within the system of electronic filing;

single electronic classifier of documents;

technology for transformation of current incoming paper documents and paper applications collection into electronic format;

electronic data exchange with foreign patent offices and organizations through electronic exchange system and ftp-servers.

95. All specialists at Ukrpatent are provided with automated workstations, connected to a computer network. Each workstation has access to the Internet via a broadband connection. This provides patent examiners with necessary means to carry out their search and examination functions. Morally and physically obsolete computer equipment is updated periodically. A single data center is generated for storing and processing data. The technologies of computer tools resiliency, virtualization of servers and storages are implemented.

96. Technical resource of Ukrpatent includes over 600 workstations based on modern PCs, 35 physical servers, 10 data storage systems based on disk arrays with the total capacity of more than 200 terabytes.

General Application Proceeding Pattern

97. According to the general application proceeding pattern, an application is filed on paper. The application is checked as to the concordance with the prescribed requirements (completeness and correctness of the prepared documents), and in case of the set of the documents being complete, a paper file for the application for invention is formed. Then all

paper documents are scanned and uploaded into the «Inventions» AS database and the central electronic document archive. Thus an electronic dossier of an application is generated.

98. After the application file has been generated, it is forwarded to the formal examination stage where it is checked for the concordance of the filed documents with the prescribed requirements. If nonconformities with the prescribed requirements are found or the need for the applicant to file any additional materials arises, the examiner is able to automatically generate necessary documents. The electronic copies of these documents are entered to the database.

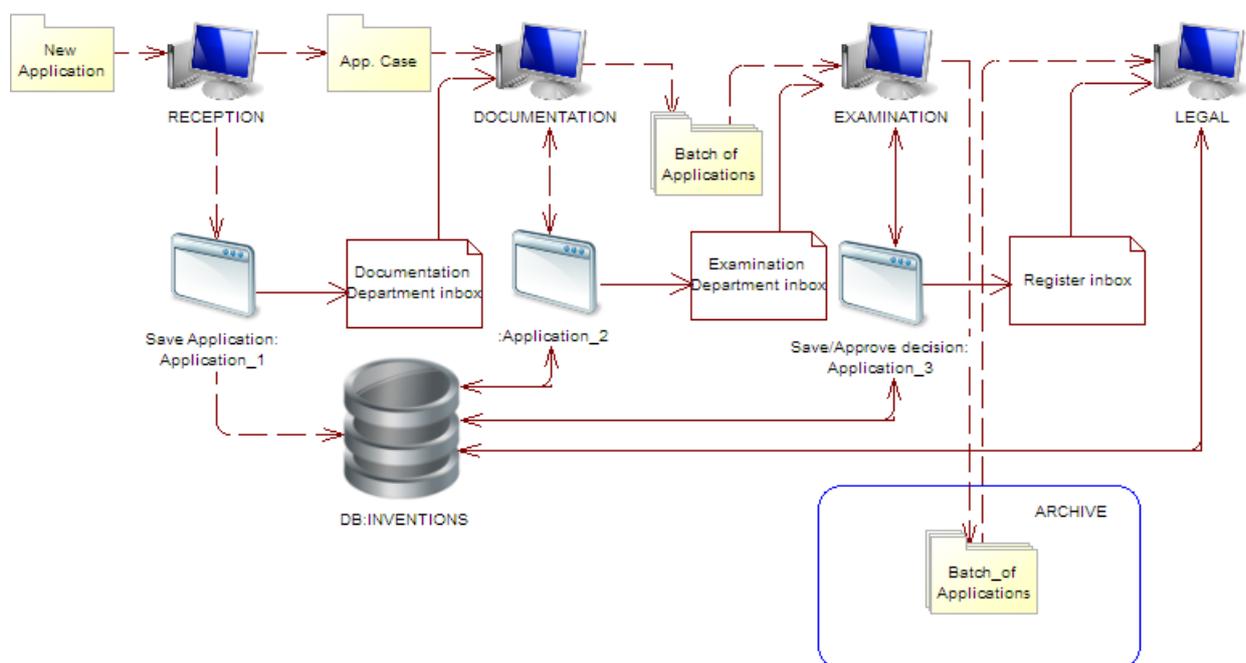
99. Thereafter the application is forwarded to the substantive examination stage.

100. At this stage, the application is checked as to concordance with the patentability criteria. If necessary, notifications and requests to applicants are generated, electronic copies of which, bearing examiners' signatures, are saved in the database.

101. Replies from applicants on paper carriers are scanned and uploaded to the database. Thus, a dossier of an application for invention is generated both in paper and electronic forms. When the substantive examination stage is over, the contents of the application dossier on paper is fully identical with the set of electronic documents in the database.

102. All the incoming documents are scanned. The document images received as a result are automatically uploaded to the database. Such documents as claims, abstract and specification of invention are automatically recognized and afterwards edited by correctors. Images and recognized text are stored in the database.

103. After scanning, all paper documents are forwarded to the archive and only electronic documents are dealt with in the system. Thus, the general pattern can be presented as follows:



Automation

104. The primary objects of automation are the invention applications prosecution and register functioning processes.

105. The "Inventions" AS is the core of the applications prosecution system and it is based on the electronic workflow principles. The "Inventions" AS provides data input, an application

"electronic profile" formation, the complete examination cycle, state register, archive, and statistical report generation for publications on the Internet.

106. All the "Inventions" AS components are constructed with due consideration of the respective WIPO standards, including ST.36 "Recommendations for the patent information processing using XML (eXtensible Markup Language)".

107. Incoming documents are initially registered by the "Incoming documents electronic register" automated workstation (AWS) and a work card of a new file is created. Afterwards, the bibliographic data is input using the "Incoming documents electronic register" AWS. All paper documents are scanned and uploaded to the electronic archive database. The documents acquired through the online application system, are automatically sent to the electronic archive. Thus, the "electronic profile" of the invention application is formed.

108. After information input, the examiner can access the application information, firstly for formal examination, afterwards for the substantive examination.

109. The "Inventions" AS includes automatic terms and examiners actions control, automatic applicants and patent holders fee payment messaging and monitoring, on the examination and the maintenance stages respectively, components.

110. The "Inventions" AS was designed within Microsoft.Net with the client/server architecture with the use of Microsoft SQL Server Enterprise Core 2014 database.

111. The Search Portal was developed and implemented for carrying out searches which provides access to patent databases and non-patent literature sources.

112. For the procedures of qualifying examination (determination of novelty, prior art) examiners have high-speed access to a large number of search resources, including WIPO resources (PCT database), the EPO search system and many others, via the Internet.

113. Information on industrial property rights is published in the official bulletin twice a month.

114. Public access to interactive (online) databases and information and reference systems, which contain information about applications for inventions and utility models, status of applications, as well as the registered documents, is provided via the official website of Ukrpatent. On the website information is published in two languages – English and Ukrainian. The site has a search engine that is also filled and accompanied in English and Ukrainian.

115. A bilateral communication channel was set for providing electronic documents exchange between Ukrainian Patent Office and the WIPO International Bureau through the PCT-EDI.

116. Also, access to the ePCT was set up, by means of which the International applications department sends documents, converted into electronic form, which are PCT applications.

Network infrastructure

117. The network infrastructure consists of the security system Checkpoint 5600 NGFW, which includes VPN and Firewall modules to communicate with the Internet and a router implemented in UNIX server to support the internal network. Two firewalls enhance the network security.

118. Cisco and HP equipment is used as switchboards.

119. The internal network is divided into eight virtual networks (VLANs).

Network technical resources

120. The following technical resources are used in the network:

HP, Dell servers, as well as virtual servers on VMware ESXi and HYPER-V (Microsoft);
HP, Infortrend information storages;
SAN (HP) network equipment;
Windows and UNIX operating systems;
database management systems – Microsoft SQL.

121. For domain structure resiliency several domain controllers are implemented.
122. The WSUS server provides server operating systems and client computers update.
123. The "ESET Endpoint Protection Advanced" antivirus server ensures all antivirus software management on user computers, antivirus bases updating, and generating the base update and existing threats reports.
124. Magnetic tapes and disk storages are used for data backup. A scheme of all servers and services restoration after a crash was set up.
125. Authorized users have access to the EPOQUE Net database through the designated IP-addresses.
126. The computer network includes 600 PCs, 35 servers and other equipment.

E filing

127. In 2010 development and testing of the electronic application filing system was completed. As of 2011 the system was put into operation. The system's functional capabilities provide for filing applications and two-way electronic document exchange between applicants and Ukrpatent. The numbers of the received IPR applications in the form of electronic documents (electronic applications) by years follow:

Year	Number of electronic applications
2011	911
2012	1,867
2013	2,027
2014	1,896
2015	2,507
2016	3,844

128. Generation of an electronic application requires filling in the fields of the electronic application form and annexing application materials to it. Application materials are signed and encoded with the help of an electronic digital signature ensuring data integrity and confidentiality during their transmission from an applicant. The fields of the electronic form are automatically checked.
129. The filed applications are stored in the applicant's personal application archive.
130. The possibility to view examination documents (messages, opinions, decisions, etc.) is provided within the system for each electronic application. Messages about arrival of new examination documents relating to electronic applications are sent to the applicant's e-mail in real time. The system also allows the applicant to use saved templates.

131. Electronic filing system is integrated with other automated systems: "Incoming Documents", "Inventions", Electronic Archive. All processes of received applications, their registration and entry into the "Inventions" AS and the Electronic Archive are made automatically.

QUALITY MANAGEMENT SYSTEM AND MECHANISMS OF INTERNAL CONTROL

132. A quality management system (QMS) in conformity with the ISO 9001:2008 standard requirements has been implemented and used at Ukrpatent.

133. In October 2012 the certificate of the quality management system compliance to the requirements of the ISO 9001:2008 standard granted to Ukrpatent.

134. In September 2015, an independent certification organization carried the audit (re-certification audit) of the QMS compliance with the ISO 9001:2008 standard requirements at Ukrpatent. On the results of the audit the QMS corresponds with the ISO 9001:2008 standard requirements.

135. Scope of certification:

- scientific and technological examination of applications for intellectual property rights and examination support processes;

- technical management of the state registers and preparation of information on applications, patents, certificates and international registrations for publication in official bulletins;

- information retrieval with regard to the claimed intellectual property rights, generation of respective reports, in particular, on invention applications under the Patent Cooperation Treaty.

136. In September 2016, an independent certification organization carried the audit (compliance audit) of the QMS compliance with the ISO 9001:2008 standard requirements at Ukrpatent. On the results of the audit the QMS corresponds with the ISO 9001:2008 standard requirements.

137. Filed Initial Report on Quality Management Systems comprises detailed information about the compliance of QMS requirements introduced in Ukrpatent to the Chapter 21 of PCT International Search and Preliminary Examination Guidelines (available from the WIPO website at <http://www.wipo.int/pct/en/quality/authorities.html>).

Internal quality control

138. The internal quality assurance system has been implemented and maintained at Ukrpatent to provide a unified approach to the examination and search processes in all industry divisions within the Department of Examination of Applications for Inventions, Utility Models and Topographies of (further - Department).

139. The internal automated on-going (routine) and randomized quality control of examination was provided.

- On-going quality control is carried out by senior tutoring examiners and the heads of industry departments.

- Randomized control is carried out at the level of the Head of the Department, Deputy head of the Department as well by the Division of quality assurance and improvement of examination of applications of inventions, utility models and topographies of integral circuits (further – Division of quality assurance).

140. Each examination division is responsible for the quality of examination in their particular field. The quality assurance system includes peer review carried out by senior examiners and quality checks performed by division heads, division of quality assurance and the head of the Department (deputy head)

141. For solution of complex dispute matters the Expert Council was established at the Department according to the particular Provision of Expert Council.

142. The process for quality assurance consists of the following steps:

- self-checking of an examiner using the instruction (checklist) containing the list of requirements with regard to quality matters;

- routine automated checking by a head of industry division;

- randomized automated checking by the Division of quality assurance.

- all patent refusals are subject to 100 per cent checking at level of the Division of quality assurance and the Head (Deputy head) of the Department.

143. In order to achieve a higher level of examination and search quality and to ensure the highest possible level of correspondence of applications subject matter to the specialization of the industrial division examiners, automated distribution of applications to examiner groups has been implemented (using topical fields which include the combinations of IPC classification symbols and keywords).

144. Based on the results of checking of search reports, requests and preliminary decisions, the controlling person necessarily passes a resolution and in case of need has the right to return respective documents for improvement. For improvement of quality assurance and for training matters the automated module was implemented in "Inventions" for consultations giving by the heads of industrial divisions and the Division of quality assurance.

145. At the end of each month all such resolutions are collected and analyzed in order to detect typical mistakes. After the mentioned matters have been studied, an appropriate training is carried out both for examiners and for industry division heads and methodical materials are elaborated.

146. After the initial analysis of such emerging quality-related issues the most significant ones requiring correction are selected. In the case of necessity, said issues are presented for consideration of the Expert Council.

147. Each month, meetings with the participation of the Director on examination matters, Director on information and technical support of examination, Head of the Department, as well as members of staff responsible for quality control are held.

148. The meetings are dedicated to discussing current quality management issues, availability of necessary resources and measures to be taken to satisfy immediate needs. The results of such meetings are brought to the attention of respective examination divisions or individual examiners for further reference.

149. At the end of each month all such resolutions are collected and analyzed in order to detect typical mistakes. After the mentioned matters have been studied, a summary is drawn up and an appropriate kind of training is carried out both for examiners and for industry division heads. The "Inventions" AS provides access to the methodical materials elaborated on the basis of such trainings to all examiners.

150. In 2016 the system of internal organizational and management documentation regulating the control and evaluation of work quality of examiners was amended. In particular, the Classifier of mistakes of works in examination and administration of applications of inventions, utility models and topographies of integral circuits and the Classifier of quality of works in examination and administration of applications of inventions, utility models and topographies of integral circuits.

– the Classifier of mistakes is intended for classification and coding (indexing) of revealed violations by their essence by officials carrying out the internal quality control of selected works.

– coding (indexing) of revealed violations according to Classifier of mistakes is directed to provision of statistical data accumulation in the “Inventions” AS, where said data are appropriate for automated statistical analysis of the results of internal quality control and for the use of its results at planning and arranging measures with regard to training matters and raising of examiners qualification.

– the Classifier of quality is intended for evaluation of quality level of checked work and coding (indexing) of an evaluation result by officials carrying out the internal quality control of selected works at the Department. The quality level of a particular work on a particular application is determined by the expert method.

– coding (indexing) of the results of quality level is directed to provision of automated statistical analysis of internal quality control results for the use of its results at planning and arranging measures with regard to training matters and raising of examiners qualification, for improvement of quality level of examiners’ work as well for the use of its results at organization, recruitment, selection, and financial and moral incentives of examiners.

CONCLUSIONS

151. Ukrpatent complies with all the criteria for the International Searching Authority and International Preliminary Examining Authority, established by Rules 36.1 and 63.1 of the PCT Instruction

regarding the qualification and competence of the experts:

– has 127 experts employed full-time, with sufficient technical qualifications to carry out search and examination; has experts who are able to conduct search and examination in the required fields of technology and who have sufficient language skills to understand at least those languages, used to write or translate the minimum amount of documentation, referred to in Rule 34 of the PCT Instruction;

regarding access to the PCT minimum amount of documentation

– has minimum documentation, specified in Rule 34 of the Instruction to the PCT, selected accordingly for the purposes of search and examination, and has access to this documentation;

regarding the quality management system and mechanisms of internal control:

– has the quality management system and performs the measures of internal control in accordance with the general rules of international search. A quality management system (QMS) in conformity with the ISO 9001:2008 standard requirements has been implemented and used at Ukrpatent;

[End of Annex and of document]