

Expert Interpretation of Recent Amendments to the Guidelines of Patent Examination ¹

Lv Dejun, Zhang Xianfeng, Li Xi, Li Yonghong, Li Yue, Wen Lei,
Liang Suling, Zhou Hubin and Hu Anqi

Introduction:

At the end of October 2016, the SIPO's Decision to Amend the Guidelines for Patent Examination (Draft for Comments) was posted on the official website for soliciting public opinions, which immediately aroused high attention and praises in the IP field. The SIPO's Decision to Amend the Guidelines for Patent Examination has been deliberated and adopted at the affairs conference of SIPO in February

2017, was officially published on 28 February 2017 after SIPO Commissioner Shen Changyu signed the Order No. 74 and will be promulgated and enforced on 1 April 2017. The Guidelines for Patent Examination (hereinafter referred to as the Guidelines) formulated according to the Patent Law and the Implementing Regulations of the Patent Law are the basis and reference for administration by law by the SIPO and the Patent Reexamination Board, and give a timely re-

sponse to the issues to be urgently solved in practice, and fulfill the new requirements for IP protection set by the CPC Central Committee and the State Council. Ever since 1993 when the Guidelines (1st edition) were issued, the Guidelines had been fully revised in 2001, 2006 and 2010. On the opportune occasion of the Fourth Amendment to the Patent Law and the Implementing Regulations thereof, the timely amendment of the Guidelines for addressing the hot and key issues in the IP field is of vital significance in improving the IP protection system and satisfying the needs of innovative entities for IP protection of new technologies under new situations. It is such an honor for China Patents & Trademarks to have an exclusive right to publish an article related to the interpretations of latest amendments to the Guidelines made by authoritative experts in both Chinese and English. The article consists of seven parts, covering issues regarding business model protection, software-related patents, drafting of claims in relation to computer software which takes advantage of “both hardware and software”, replacement of “function module(s)” with “program module (s)”, examining rules for supplemented experimental data, manners of claim amendment in the invalidation proceedings, requirements for evidence later supplemented by petitioners, consultation of patent documents, and extension of suspension procedure. This amendment of the Guidelines adheres to the problem-oriented principle, responds to the long-standing and controversial issues in the IP field, and establishes a solid foundation for the full revision of the Guidelines in line with the Fourth Amendment to the Patent Law.

Parts I and VII are written by Lv Dejun from the Treaty Law Division of SIPO and Zhang Xianfeng from the Examination Administration Division of SIPO, and mainly for introducing the necessity of amendment of the Guidelines, the drafting process and subsequent arrangements; Part II relates to amendments to provisions on business models, and is written by Li Xi from the Patent Reexamination Board (PRB) of SIPO; Part III relates to amendments to provisions regarding examination of applications for computer program-related inventions, and is written by Li Yonghong from the Electrical Invention Examining Division of SIPO; Part IV relates to amendments to provisions on examination of invention applications in the field of chemistry and more particularly to how to examine experimental data supplemented for applications in the field of chemistry after the filing date, and is written by Li Yue from the PRB of SIPO; Part V relates to

amendments to provisions on examination of request for declaration of invalidity, and is written by Wen Lei from the PRB of SIPO; and Part VI relates to amendments to provisions on procedures for consultation and photocopying of patent application files, and suspension procedure thereof, and is written by Liang Suling from the Preliminary Examination & Flow Management Division of SIPO.

Our special gratitude also goes to Zhou Hubin from the Examination Administration Division of SIPO and Hu Anqi from the Treaty Law Division of SIPO for their active coordination and efforts in compilation and proofreading of this article.

* * * * *

I. Necessity and process of amendments to the Guidelines

Several Opinions of the CPC Central Committee and the State Council on Deepening the Reform of Systems and Mechanisms to Accelerate the Implementation of Innovation-driven Development Strategies (ZF No. 8 [2015]) highlight that it is necessary to conduct researches on methods for stimulating new innovations, such as business models, under IP protection. Several Opinions of the State Council on Acceleration of Construction of IP Power under New Situations (GF No. 71 [2015]) provide that more efforts shall be made to strengthen IP protection of new innovations in new fields and improve the IP protection system of business models, to conduct more researches on the IP protection rules in the fields of Internet, E-commerce, big data and the like with an aim of improving relevant laws and regulations, to improve the post-grant patent document amendment system, and to timely make the patent prosecution information open to the public according to law.

In recent years, internet technologies are booming and deeply integrated with all sectors of the economy and society so as to effectively promote innovations of business models in all walks of life. Investigation revealed that innovation entities are in the hope that the patent system can afford protection to technical solutions innovated under those business models. Moreover, in patent examination practice, innovation entities have raised reasonable concerns and demands on rules for examining supplemented experimental data, post-grant amendment of patent documents and more disclosure of patent prosecution information. It is of

great necessity to give an active response at the legislative level so as to clarify examination criteria, strengthen administration according to law and enhance public service provided by the government. As relevant laws are revised, patent examining practice shall also be regulated accordingly for the sake of consistency.

At the end of 2015, the SIPO organized and established working groups for drafting and compiling amendments to the Guidelines to initiate the revision thereof. During the drafting phase, 780 suggestions in relation to the revision of the Guidelines were collected. After scrutinous research, the drafting groups proposed 385 amendments, covering a variety of aspects, such as issues explicitly mentioned in the documents of the CPC Central Committee and the State Council or issues which arouse strong concerns, amendments made to further standardize, regulate or improve the examination rules, strategies and procedures, as well as amendments made accordingly in light of the current practice. In comprehensive consideration of significance, necessity and urgency of the contents proposed to be revised, more particularly, in consideration that the higher-level laws on which the Guidelines are based, namely the Patent Law and the Implementing Regulations thereof, are undergoing revision, the principles and directions of the Guidelines revision have been established, that is, the revision is problem-oriented with focuses on issues to be urgently addressed in practice and on the requirements for patent protection from a national policy perspective. Regarding the amendments closely related with the revision of the Patent Law and the Implementing Regulations of thereof, they will be adaptively adjusted after the completion of the Fourth Amendment to the Patent Law of China.

From March to August of 2016, the drafting and compiling groups of the SIPO, together with experts in relevant fields, finalized the "Draft Amendment to the Guidelines (Draft for Comments)" after going through repeated researches and discussion in dozens of symposiums and after soliciting opinions from representative enterprises and patent agencies. Pursuant to the Legislative Law, the Regulations on Procedures for the Formulation of Rules, and the Rules of the SIPO on the Procedures to Enact Regulations, the "SIPO's Decision to Amend the Guidelines (Draft for Comments)" and its explanations, as well as a cross-reference chart of amendments, are posted on the "System for Requesting Comments on Draft Rules and Regulations" of Legislative Affairs Office of the State Council and the official

website of SIPO (www.sipo.gov.cn), for soliciting public comments for a period from 27 October to 27 November 2016. Also, forums, seminars and symposiums are held to extensively hear opinions and suggestions from people from all walks of life. The SIPO collected and sorted out all the relevant opinions so as to further adjust and improve the Draft Guidelines before formal filing for deliberation. The SIPO's Decision to Amend the Guidelines for Patent Examination has been deliberated and adopted at the SIPO's affairs conference on February 2017, was officially published on 28 February 2017 after SIPO Commissioner Shen Changyu signed the SIPO Order No. 74 and will be enforced on 1 April 2017.

II. Interpretation of amendments to provisions on patent applications for business models

1. Background and research process

In response to the requirements and instructions on improved IP protection of business models and strengthened IP protection in new style and new format as put in a series of policy documents enacted by the CPC Central Committee and the State Council, the SIPO established a subject group specialized in "research on IP protection of business models" on April 2015 and continued to conduct in-depth research in 2016 so as to, on the one hand, figure out how to strengthen IP protection of business model innovations and, on the other hand, provide a scientific basis for the amendment of the Guidelines.

During the research process, the subject group has worked with people responsible for drafting the policy documents, innovative entities, experts, scholars and practitioners in the IP field to conduct in-depth investigation and researches. It was found that in terms of IP protection of business models, issues most enterprises concern are that under the current patent system, the requirements regarding eligible subject matters for IP protection are too severe; it is difficult to seek protection for the new business models of the domestic micro-innovation-based Internet industry. In addition, the enterprises also extend their sincere hope in seeing a stepwise optimization of resources to facilitate search of patent applications relating to business methods and a better communication with enterprises so as to satisfy the needs of innovation entities.

During the research process, the subject group extensively discussed the routes for IP protection of business models and comparatively analyzed pros and cons thereof. The group studied the formats and contents of internet-based business model innovations at home and abroad with reference to commercially successful examples in reality in such a way to sort out and classify patent applications relating to business model innovations for preliminarily defining the connotations and denotations of such innovative results. The group also delved into the specialties of methods for protecting business models and the relations between those methods and the current IP system by conducting a statistical analysis of domestic patent applications and granted patents with regard to business models and a comparative study of the domestic and foreign patent examination criteria. The group further summarized potential drawbacks or problems of the current patent examination regulations on protection of business model innovation through mock examination of a variety of cases.

2. Necessity of amendments

It is of great necessity to clarify whether business model applications are patentable from the perspectives of industry needs and policy values.

From the perspective of industry needs, Internet plays a key driving role in the new round of global industrial revolution, and integration of Internet with traditional industries is extremely promising and already becomes an irresistible trend of the times. Innovations and productivity of Real Economy are enormously enhanced because of the technical developments, efficiency improvement, and organizational change represented by the “Internet plus”. Innovations herein include both technical innovations and business model innovations. Under the “Internet plus” economic context, economic growth gets incentives from two dimensions - technical innovation and business model innovation. This is different from the old mode in which the industrial economy mainly grew because of technical innovations. The legal reform must conform to the trend of social developments to provide service for the social and economic developments. As an important tool to encourage innovation and stimulate economic growth, the IP system shall fully reflect and embody the objective needs of the economic New Normal and industrial development.

From the perspective of policy values, China enacted a series of policy documents regarding innovation incentives, Internet plus, and mass entrepreneurship and innovation.

The Internet is accelerating the aggregation, openness and sharing of innovative factors and entrepreneurial resources, and has become a pilot to boost the innovation-driven development and an important platform for facilitating mass entrepreneurship. All sectors shall coordinate with wisdom and efforts to quickly form a series of supportive policies to guarantee implementation of the above major deployments. IP protection of “new business models” is one of the vital aspects. It may help advance innovations and protect innovation results by considering giving IP protection for “new business models”, which may further stimulate the incentives for innovating under the “Internet plus” development mode.

3. Routes for protecting business model innovations

Under the current IP system, business model innovations can be protected in various forms, such as patent, copyright, trademark, trade secret and anti-unfair competition. Nevertheless, different protection manners have diversified requirements, forms, contents and values. In contrast, patent protection of business models has the following advantages:

(1) It can effectively protect the concept of invention

Different from the copyright law that protects software relating to business models, the patent law can protect the concept of business models. The concept is the core of business models that requires the most manpower, time, and resources. Therefore, the concept is in the most need of protection. By patenting the concept of the business models, the innovators may gain more competitive advantages.

(2) It offers a completely exclusive protection

If business models are protected under the copyright law, the right holders of software relating to business models are only entitled to a limited exclusive right to their works. In contrast, the patent right afforded to business models can completely exclude others from practicing the business models, and thus provides a more effective protection for the patent holders.

(3) It can facilitate innovations

The patent law requires that a patented business model should disclose the entire technical solutions to enable the public to clearly understand the concept and related technical contents of the business model, thereby facilitating new improvements and avoiding repetitive investment on and development of the same type of business models.

4. Patent protection of business model innovations in

other countries

The European Patent Office (EPO) stipulates that if the subject-matter of a patent application is related to plans, rules and methods of business operations, then it cannot be granted the patent right.² In European examination practice, a claim is considered “technical” as long as it contains technical features. In other words, requirements on subject matter are relatively lenient. During the “inventive step” examination, it is to be determined whether the distinguishing features make a technical contribution, and if not, the claimed invention would be considered as lacking an inventive step. However, if the distinguishing features indeed make a technical contribution, one will then decide whether the claimed invention for addressing a relevant technical problem is obvious, and only non-obviousness justifies the presence of an inventive step. That is, in regard to examination and approval of patent applications for business method inventions, the EPO currently places emphasis on examining the technical contents of the claimed solution, and pays less attention to the contribution the business model innovations may bring to the entire solution.

In the U.S., patent applications for business methods are examined under the examination guidelines for computer-related inventions. One should first determine whether the subject matter of an invention is statutory and then determine whether the invention possesses novelty and an inventive step. In the U.S. examination practice, a claim is considered to be patent eligible only when it includes elements substantively different from the non-statutory elements, which demonstrates higher requirements for subject matter. For instance, in the Alice case, although a general-purpose computer is defined in the claim, there are no other elements that extend beyond the abstract ideas in substance, and therefore the claim is not patent eligible. As far as inventive step is concerned, if the subject matter requirements are satisfied, both the business rules *per se* and the technical features shall be taken into account. Currently, a prevailing view in the IP circle is that under the influence of the Alice case, the U.S. may adopt stricter criteria for examining business method applications.

Japan and South Korea have adopted substantially identical examination routes before granting patent protection for business methods, that is, patent applications for business method inventions are examined under the rules for software-related inventions, and business methods alone would not be protected.

In retrospect of the process of granting patent to business methods, the U.S. confirmed the patentability of business methods through the case law, which aroused objections from the European countries. Japan and South Korea also voiced that overbroad patent protection would harm enterprises. Along with the clarification of the U.S. business method patent system, enterprises in Europe, Japan and South Korea, etc. have rushed to the U.S. and meanwhile embarked on filing patent applications for business methods in their own countries. As a result, the EPO and JPO had to change their stance, because if they do not grant patent to business methods, inventors have no choice but to launch their innovative achievements in the U.S. market to realize their values. Reference can be made to the above situations for protection of “business models” in China.

5. Amendments

The current Chinese Guidelines explicitly stipulate in Part II, Chapter 1, Section 4.2 “Rules and Methods for Metal Activities” that:

“Mental activities” refer to human’s thinking movements. They originate from human’s thinking, and generate abstract results through inference, analysis and judgment, or produce results by indirectly acting on the nature via human’s thinking movement. Rules and methods for metal activities are rules and methods governing people’s thinking, expression, judgment, and memorization. Because they neither use technical means or apply the laws of nature, nor solve any technical problem or produce any technical effect, they do not constitute technical solutions. Rules and methods for metal activities not only fail to comply with Article 2.2, but also fall within the circumstance as provided in Article 25.1(2). Therefore, rules and methods instructing people on how to perform this kind of activities cannot be granted patent rights.

In determining whether or not a claimed subject matter in a patent application involving rules and methods for metal activities is a patentable subject matter, the following principles shall be followed.

(1) If a claim concerns only rules and methods for metal activities, it shall not be granted a patent right.

If a claim, except for the title of the subject matter, is defined by rules and methods for metal activities in its entirety, it relates to, in substance, only rules and methods for metal activities, and shall not be granted a patent right.

The following are some examples:

methods of examining patent applications;

methods and systems of managing organization, production, commercial activities, or economy, etc.;

traffic rules, schedules, competition rules;

methods of deduction, inference, or operations;

rules of classifying books, methods of editing dictionary, methods of searching information, methods of classifying patents;

rules and methods of editing calendar;

operating instructions of an instrument or an apparatus;

grammar of various languages, rules of coding Chinese characters;

computer languages, computing rules;

short-cut arithmetic methods and relevant pithy formulae;

mathematical theories and methods of conversion;

methods of psychological test;

methods of teaching, lecturing, training, and beast training;

rules and methods of various games or entertainment;

methods of statistics, accounting, or bookkeeping;

music books, food recipes, or chess manuals;

methods of keeping fitness;

methods of disease survey and methods of population census;

methods of presenting information; and

computer programs *per se*.

(2) Except the cases described above in item (1), if a claim in its entirety contains not only the rule or method for metal activities but also technical features, then the claim, viewed as a whole, is not a rule or method for metal activities, and shall not be excluded from patentability under Article 25.”

As seen from the above, “methods and systems of managing organization, production, commercial activities, or economy, etc.” and “methods of statistics, accounting, or bookkeeping”, as rules and methods for metal activities, are non-statutory subject-matter.

Nevertheless, along with the development of Internet technology, business model innovations emerge constantly in the fields of finance, insurance, security, lease, auction, investment, marketing, advertising and operations management. These new business models work well in the market and are customer-friendly, which can enhance resource allocation and mobility, save social costs and increase social welfare. Hence, we should actively encourage and appropriately protect innovative technical solutions of such busi-

ness models, rather than deny the grant of a patent for a technical solution simply because the technical solution includes rules and methods for business. The amended Guidelines add a provision at the end of item (2) listed above, clearly stating by way of example that if a claim relating to business models includes not only rules and methods for business but also technical features, it shall not be excluded from patentability under Article 25 of the Patent Law.

With the above amendment, it is aimed to make it clear to the public that for a patent application related to business contents and implemented using the computer and network technology, if the claims include technical features (s), it can be granted a patent according to law.

III. Interpretation of amendments to provisions regarding examination of applications for computer program-related inventions

Though the SIPO’s Decision to Amend the Guidelines for Patent Examination mentions a few amendments to the provisions in Part II, Chapter 9, each word is amended after a comprehensive consideration of issues at different levels. To facilitate the public’s deep and solid understanding, a brief introduction will be made from the perspectives of policy background, jurisprudential bases, interpretation of amendments, and matters to be considered.

The key issue to be addressed through amendment is how to embody an invention, which is primarily or in part related to improvements in computer procedural programs, in the claims.

1. Policy background

The current contents of this Chapter are still the same as those of the Guidelines 2006. The computer industry, however, has undergone great changes during the last decade. In view of the development of software and hardware technologies, the software industry has developed into a big industry that plays the same role as the hardware industry in supporting newly emerging industries like Internet, E-commerce, big data and the like. From the perspective of technical progress at home and abroad, China, which once lagged far behind its counterparts, has seen a batch of competitive enterprises with technical strengths and marketing advantages active in the international arena. Under this background, the Document No.71 [2015] of the State Coun-

cil expressly emphasized that more efforts shall be made to study the rules for IP protection in the sectors of Internet, E-commerce and big data, etc. to improve relevant laws and regulations.

Computer programs serve as the technical support for the sectors of Internet, E-commerce and big data, etc. The following problems facing patent protection for computer programs shall be solved urgently: inventions which are primarily or in part related to improvements in computer programs are on the increase and become diversified, whereas the current Guidelines provide rather limited examples of how the corresponding claims should be expressed. Under some circumstances, the current forms of expression can hardly present the essence of the invention in a clear manner, which may lead to divided views on interpretation of the claims in subsequent judicial proceedings. In the spirit of the Document GF No.71 [2015], the amendments to the current Guidelines shall be directed to providing innovative entities with abundant examples of how claims should be drafted to meet the need of representing the computer program-related inventions in a sufficiently clear manner.

2. Revisions based on jurisprudential analysis

The revision is to clarify some controversial issues existing in the current Guidelines under the current legal framework. With a firm and definite direction of revision, it is important to obtain a correct understanding of jurisprudential bases for current laws and Guidelines. The revision mainly involves two legal issues.

(1) What is “computer programs *per se*”?

As for an invention whose essence lies in the improvement to the computer program flows, why can't we directly write the features regarding the improvement to the computer program flows into the claims? A major obstacle is about the boundaries of patentable subject matters, i.e., whether the improvements of the computer program flows belong to “computer programs *per se*”.

Therefore, the issue to be first solved is to draw a line between “computer programs *per se*” and an invention with all its improvement in the computer programs.

As a matter of fact, the current Guidelines have already respectively defined “computer programs *per se*” and “the invention relating to computer programs” from the year of 2002.

“Computer programs *per se*” are defined as follows: “computer programs *per se* said in this chapter mean a coded instruction sequence which can be executed by a

device capable of information processing, e.g., a computer, so that certain results can be obtained, or a symbolized instruction sequence, or a symbolized statement sequence, which can be transformed automatically into a coded instruction sequence. Computer programs *per se* include source programs and object programs.”

“The invention relating to computer programs” is defined as follows: “the invention relating to computer programs said in this chapter refers to solutions to the problems of the invention which are wholly or partly based on the computer program flows, and control or process external or internal objects of a computer by the computer executing the computer programs coded for implementing a process.”

The boundary between “computer programs *per se*” and “the invention relating to computer programs” is clearly elaborated in the “Guide to the Revision of the Guidelines for Examination” published in 2002:

“The definitions of ‘computer programs *per se*’ and ‘the invention relating to computer programs’ are provided in Chapter 9, Section 1 of the Guidelines so as to distinguish them from each other”.

“The definitions are given with an aim to clarify the differences between the copyright law and patent law in terms of protection of computer software. The copyright law is only to protect the forms of computer programs, namely computer programs *per se*. The patent law is intended to protect a solution relying on the execution of computer programs, namely, a complete solution described in natural language according to the time sequence of the computer program execution.”

According to the foregoing definitions and explanation, “computer programs *per se*” consist of three types of sequences, that is, a coded instruction sequence, a symbolized instruction sequence and a symbolized statement sequence. The solution which is described in natural language and “wholly based on the computer programs flows” belong to “the invention relating to computer programs”, instead of “computer programs *per se*”.

Since it is very rare to see a coded instruction sequence, a symbolized instruction sequence or a symbolized statement sequence defined in a claim, the above definition does not receive due attention in practice. In contrast, a sentence mentioned in Chapter 9, Section 2(1) tends to result in different understandings, which goes like this, “if a claim merely relates to an algorithm, or mathematical com-

puting rules, or computer programs *per se*, or computer programs recorded in mediums……, it ……does not constitute the subject matter for which patent protection may be sought.”

Literally speaking, the “computer programs” in the above statement can be interpreted in two ways. One is that the provision still excludes “computer programs *per se*” as defined in the Guidelines, and the other is that the provision includes all the claims that are directly expressed as representing improvements of the computer program flows. If a claim is directed to a process of a computer program recorded in a medium, such as “a storage medium recording a computer program, characterized by comprising a first step……, a second step……”, it certainly defines a non-patentable subject matter as it directly defines the improvements of the program flows. Likewise, if a claim, though having a subject matter indicative of an apparatus, actually defines the improvements of the computer program instructions, the claim is not patent eligible.

Which understanding is correct? According to the legal interpretation method, when it is impossible to find an exact answer according to the literal meaning, one can resort to the systematic interpretation method to find consistent explanations from related parts.

First, the part appearing in a paragraph containing that concept is often considered to be most relevant. As it reads “if a claim merely relates to an algorithm, or mathematical computing rules, or computer programs *per se*, or computer programs recorded in mediums……, it ……does not constitute the subject matter for which patent protection may be sought”, it can be inferred from the juxtaposed syntax that “computer programs” in “computer programs recorded in mediums” are similar to “computer programs *per se*” in meaning.

Second, the chapter which introduces that concept is entitled “some provisions on examination of applications for computer program-related inventions”. The term, an invention “wholly or partly based on the computer program flows”, occurs several times and many cases mentioned in the chapter are directed to the computer program flows. If “computer programs recorded in mediums” are broadly interpreted as including “the computer program flows” and therefore are considered to be non-patentable in all cases, said interpretation would not be in line with either the title or the entire contents of the chapter.

More importantly, the legal basis of this chapter is Arti-

cle 25.1(2) of the Patent Law, namely, rules and methods for metal activities are not patent eligible. The computer program flows are a solution for solving some type of issues, and therefore may be rules for metal activities or a technical solution for addressing a technical problem. Even though a claim defines that a computer program is recorded in a medium, if its content is related to a technical solution, it shall not be precluded from patent protection just because the claim involves the rule for metal activities.

As such, a correct understanding is that “computer programs recorded in mediums” as provided only refer to clearly defined “computer programs *per se*”.

For the sake of clarification, the phrase “computer programs recorded in mediums (such as tapes, discs, optical discs, magnetic optical discs, ROM, PROM, VCD, DVD or other computer-readable mediums)” in Part II, Chapter 9, Section 2(1), paragraph 1 is amended to “computer programs *per se* recorded in mediums (such as tapes, discs, optical discs, magnetic optical discs, ROM, PROM, VCD, DVD or other computer-readable mediums)”.

Accordingly, the phrase “computer-readable storage medium that is merely defined by recorded program” in Part II, Chapter 9, Section 2(1), paragraph 3 should be amended to “computer-readable storage medium that is merely defined by recorded program *per se*”.

The above amendments remove the obstacles so that the improvements of the computer program flows are listed as a patentable subject matter.

(2) Computer program flows and types of claims

The second legal issue involves the types of claims. In the patent law, there are two categories of claims: process claims and product claims. The legal purpose for distinguishing process patents and product patents is recited in Article 11 of the Patent Law, which specifies different manners to protect patented products and patented processes respectively. A patent holder of a product patent is entitled to exclude others from making, using, offering to sell, selling or importing the patented product, whereas a patent holder of a process patent is entitled to exclude others from using the patented process and using, offering to sell, selling or importing the product directly obtained by the patented process.

Which type of claims is applicable to an invention relating to the improvements in the computer program flows? If both types of claims are applicable, what differences do they have?

a. Process claims

As for an invention relating to computer programs, it was first allowed to have process claims. As early as 1992, the Guidelines definitely stipulated that “since the inventive contributions made by the inventor are only directed to computer programs, a patent application for an invention relating to computer programs shall be filed in the form of ‘process invention’.” (Chapter 12, Section 4)

Along with the development of technologies and production manners, limits of patent protection for process claims become increasingly apparent.

In particular, automated production lines came into being thanks to rapid progresses of computer technologies. In a large workshop, only machines are roaring and no workers are around. Characteristics of process claims have undergone qualitative changes---it is no longer the operators, but a control program installed in a machine that instructs the machine to operate according to the steps and controls the effect of the implemented method.

Here comes the question: who is the subject infringing the patented process - operators, machines, purchasers of the machines or manufacturers of the machines?

Things become more complicated for an invention with primary improvements in the computer program flows. The reason is that an operator may not be any entity for production and business purposes; he/she may simply be a user who installs the purchased software in his/her own computer, or even just a user who clicks the control icon of the installed software.

From the viewpoint of the legislative tenet of the patent system, a patent prohibits an entity from making profits from an invention/creation without license from the patent holder. Although the terminal computer user is the one who initiates the execution of computer programs, it is obvious that the terminal user is not the one who makes profits through the use of inventions relating to the computer program flows. Software makers gain profits through inventions relating to the computer program flows, but the process is not in real operation before being installed onto computers for operation. According to the normal standards, program makers do not satisfy all the legal requirements for the use of methods. Even if theories of contributory infringement, induced infringement, or potential use of a method or the like are introduced into the judiciary, it is still difficult to determine, for example, whether there is a direct infringement and how many damages resulting from infringement should be deter-

mined.

To meet the needs of patent protection, during the late 20th-century, the U.S., Europe and Japan have already permitted the use of product claims for inventions with contributions to the improvements of compute programs.

To be compatible with the technology developments, China has gradually altered its approach of only using process claims for inventions contributing to the improvements of compute programs. Two landmarks are: the Guidelines 1993 permitted the use of apparatus claims for “inventions containing computer programs”, and the Guidelines 2006 permitted the use of apparatus claims for “inventions wholly based on the computer program flows”.

b. Functions of the program features in product claims

Use of apparatus claims for “inventions wholly based on the computer program flows” may facilitate the determination of infringing acts and infringers by innovative subjects. In an apparatus claim, what is the limitation of the features corresponding to the improvements of computer programs?

A common drafting format in practice is that a procedural feature (the step corresponding to a computer program flow) is always drafted as “an apparatus ... used for ...”. Such an expression, however, is in most cases interpreted as a process limitation or functional limitation, both of which are defective.

For instance, in an expression of “a memory used for storing client information data”, what is the influence of the expression “storing client information data” as a process limitation on the structure of the memory? If said feature is interpreted as a functional limitation, then any memory capable of storing data certainly has the function of storing client information. This functional limitation would then be meaningless.

What confuses us more is that if the subject matter defined in a claim is a virtual device, for instance, “a device used for……” or “a device configured to……”, but there is no corresponding “device” recited in the description, such a claim would inevitably lead to different understandings in subsequent judicial proceedings.

Why can't we directly draft an apparatus claim as, e.g., “an apparatus, characterized in that a computer program implemented thereby is……”?

In addition to the above subject matter requirement, sequence and structure shall also be taken into account. In brief, someone holds that a process claim consists of se-

quential features, whereas a product claim consists of structural features. Since the process of the computer program is usually characterized by sequential features, these features shall appear in the form of process features or functional features in a product claim so as to limit an actual or virtual “device” having a certain structure.

This understanding stems from non-exhaustive examples provided in the Guidelines for showing how a process claim and a product claim should be drafted. The Guidelines state that a product claim is usually described with structural features of the product and a process claim is usually defined with such technical features as process procedures, operational conditions and steps or control flows.

The key to correct the above understanding is to make clear the legal position of the foregoing provision.

First, the above provision is not the basis for denying the applicant’s right to select a claim type. Article 11 of the China’s Patent Law provides the legal basis for why the patent applications shall be divided into product claims and process claims, that is, the process claims and the product claims are intended to target different infringing entities. It is a right of choice provided by law for the sake of effective protection of innovators’ rights.

Second, irrespective of the claim types, the legal bases for determining whether the claim drafting meets the corresponding requirements are: (1) Article 26 of the Patent Law, requiring that the claims shall be supported by the description, and (2) Rule 20 of the Implementing Regulations of the Patent Law, providing that the claims shall define clearly and concisely the matter for which protection is sought. By law, the Guidelines provide non-exhaustive guidance on how to clearly draft different types of claims.

In fact, how could we clearly and precisely define a variety of products with numerous invention points in a universal drafting format? For a mechanical product, the mechanical structure thereof often comprises relations between components in terms of location or movement; and as for a chemical product, the chemical structure thereof is often described as a chemical relation between, e.g., chemical elements or groups. Indeed, it is unnecessary to describe those structures with time-sequential features. As for computer programs, however, time-sequential features are crucial. As far as those skilled in the art are concerned, it is not only clear but also of great necessity to describe the characteristics of a computer program with its time-sequential features.

Where protection of an invention “whose improvements lie in the process of computer program” by product claims is legally permitted, and the claims clearly indicate that the improvements lie in the process of the computer program, it would be inappropriate to require that a program feature must be drafted in terms of method steps for defining a physical or virtual “device”, simply for reasons that the Guidelines state “a process claim shall usually be defined in terms of such technical features as technological process, operational conditions, steps and procedures.”

After resolving the issues regarding subject matter and claim type requirements, the computer program flow can be definitely written as a component of a product claim.

To remove ambiguity, the following amendments are made to the Guidelines:

(1) Amending the phrase “i.e., the apparatus for executing the process” in the first sentence of the first paragraph in Part II, Chapter 9, Section 5.2 to “e.g., the apparatus for executing the process”.

Such amendment is intended to prevent an interpretation of a computer program as a process defining structural features of a device.

(2) Amending the phrase “a detailed account shall also be given on the component parts by which the various functions of the computer program are performed, and on how these functions are performed” in the third sentence of the first paragraph in Part II, Chapter 9, Section 5.2 to “the component parts can include both hardware and programs”.

Such amendment is made for the following two purposes: a. preventing an interpretation of program features as functional limitations, and b. clarifying that a product claim can include programs, which provides a basis for inclusion of program features in the product claim.

(3) Amending “function module(s)” in Part II, Chapter 9, Section 5.2, paragraph 2 to “program module(s)”.

This amendment serves the same purpose of avoiding an interpretation of program features as functional limitations.

Through those amendments, the claims can be drafted in a way better compatible with technological forms of a product, so as to facilitate drafting and understanding of claims and make it easy to conduct patent examination and construe claims in judicial proceedings.

For instance, a solution “wholly based on the computer program flows” can be drafted as a process claim or a “function module framework” (or program module frame-

work) claim, or it can be directly drafted as “a computer apparatus comprising a memory, a processor and a computer program stored in the memory and operating on the processor, characterized in that the program, when executed by the processor, may cause the processor to……” or “a computer-readable storage medium having stored thereon a computer program (instruction), characterized in that the program (instruction), when executed by the processor, can cause the processor to ……”

3. Issues to be further explained

(1) Computer program product claim

It is clarified through amendment that a claim relating to improvements in a computer program described in natural language does not belong to “computer programs *per se*”, which means if a “computer program” claim is directed to a solution relating to the process of the computer program described in natural language, it should not be determined as a non-patentable subject matter simply because it belongs to “computer programs *per se*”. But does it mean the claims of such kind are permitted?

First, the fact that a claim is not directed to “computer programs *per se*” does not necessarily guarantee its eligibility for patent protection. For instance, in the Benson case of the U.S., the computer process solution with improvements lying in a numerical algorithm still belongs to rules for mental activities.

Second, a computer program must exist on a carrier or a storage medium, or operate on a device, or be transmitted through a channel. Even with cloud technology, a program is still required to be present on a carrier. Although the form of carrier has no substantial influence on the improved solution of the computer program, will it cause unnecessary dispute over determination of infringement? There haven't been any cases in China for reference, but some prudent approaches in the U.S. are worthy of attention. The USPTO stated in the Notice that the broadest reasonable interpretation of a claim drawn to a computer readable medium typically covers forms of non-transitory tangible media and transitory propagating signals *per se*, particularly when the description is silent. The Notice also indicates that a claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow down the claim to cover only statutory embodiments by adding the limitation “non-transitory” to the claim.

In consideration of early development of computer

technologies and redundant cases in the U.S., it may be a safe choice to learn from the U.S. its prudent approaches. A product claim with a computer program subject matter, though being determined as patent eligible, still needs to meet the requirements for clarity so as to avoid unnecessary disputes due to ambiguity of carrier in subsequent proceedings.

(2) Construction of “function module framework” claims

In view that all “function modules” are amended to “program modules” in Part II, Chapter 9, Section 5.2, paragraph 2, the old “function module framework” claims have to be changed to “program module framework” claims accordingly. How should we comprehend these claims? In light of relevant provisions of the Guidelines, first of all, they are apparatus claims and therefore what is sought for protection is an apparatus; second, the expression of “each component in the apparatus claim completely corresponds to each step in the process of the said computer program or each step in the said process claim” determines that essential features of such claim must be the process of the computer program. Thus, the apparatus claim “shall be construed as the program module structure realizing the solution mainly through the computer program described in the description, rather than physical devices realizing the solution mainly through hardware.” Judging from the entire contents in this section, what is denied is that the solution is realized through “hardware”, and what cannot be denied is that the claim still should be construed as “physical devices”. In other words, the computer apparatus to which the claim is directed shall be considered as neither a process nor a computer program product, but the improvements of the apparatus lie in the program which serves as an integral component and not in the hardware.

(3) Multiple subject-matters and identical invention-creations

The question to be determined is whether different expressions for a claim may lead to multiple patents resulting from a single invention.

The Patent Law of China provides that “for any identical invention-creation, only one patent right shall be granted.” This provision is interpreted in the Guidelines as follows: “the purpose of preventing duplicate patent rights being granted for an identical invention-creation is to prevent interference between patent rights”.

In this regard, the Guidelines provide that for any invention or utility model, “identical invention-creation” means in

two or more applications or patents there exist claims which have the same scope of protection.

As to the scope of protection, Article 17 of Several Provisions of the Supreme People's Court on Issues relating to Application of Law to Adjudication of Cases of Patent Disputes (FS No.21[2001]) reads: "the extent of protection of the right for invention or utility model shall be determined by the terms of the claims. The description and the accompanied drawings may be used to interpret the claims" mentioned in Article 56.1 of the Patent Law means that the scope of protection of patent right should be determined based on the necessary technical features expressly stated in the claims, and also includes the scope as determined by the features equivalent to the necessary technical features.

The equivalent features refer to the features which use substantially the same means, perform substantially the same function and produce substantially the same results and which can be contemplated by an ordinarily skilled person in the art without inventive efforts."

Pursuant to the above principle, one needs to judge in practice whether the claims based on the same content but having medium, general-purpose computer or "program module framework" as subject matter involve "the features which use substantially the same means, perform substantially the same function and produce substantially the same results and which can be contemplated by an ordinarily skilled person in the art without inventive efforts", so as to prevent conflicts of rights caused by double patenting for identical invention-creation.

In regard to process claims and product claims, one case is enumerated in Part II, Chapter 3, Section 6.1 of the Guidelines: "where the descriptions (of two applications) contain a product and a process to produce the product, if the claims of one application claim the product and the claims of the other claim the process, the invention-creations claimed in the two applications shall be regarded as different." It shall be noted that the improved solutions of the invention-creations are considered to be different on the premise that they are respectively directed to a product and a process. The method for judging whether a process claim and a product claim belong to the identical invention-creation is not applicable in all cases, and such a judgment shall be made on a case-by-case analysis according to the scope of protection of claimed invention-creations.

It shall be pointed out that alleged infringing acts and

infringers may be different for claims having different subject matters. It is not lawful to deprive an applicant of the right to define claims with different subject matters in the same application simply because of the above principle, which is similar to the rationale for permitting filament, light bulb or search light to become the claimed subject-matter even though the improvement to the application lies in the filament.

Another amendment is related to the deletion of Example 9 from Part II, Chapter 9, Section 3(3), so as to demonstrate that in some cases, it may be better to solve the issues arising from examination of patent eligible subject matters during the process of inventive step examination, which will not be elaborated herein due to limited space.

IV. Interpretation of amendments to provisions on examination of invention applications in the field of chemistry

1. Background

The field of chemistry, in a broad sense, covers several fields such as chemistry, chemical industry, pharmacy, biology and materials. Those fields, as part of experimental science, are characterized by poor predictability in technical effects in comparison with other fields and are shown to be dependent on experiments. For patent applications for invention in the field of chemistry, applicants or inventors often testify some technical effect by experimental data, and further use the technical effect to prove that the claimed invention satisfies the requirements of patentability under the Patent Law.

Great importance has been attached to review of experimental data in the field of chemistry. All the old versions of the Guidelines have set forth special provisions on review of experimental data and the relations between the experimental data review and reviewing criteria under patent grantable clauses. Accurate interpretation of the principles, criteria and approaches for reviewing experimental data arouses attention of patent examiners and judicial judges, and is of great concern to innovative entities and patent attorneys in the field of chemistry at home and abroad. For instance, it is desirable if the Guidelines can further clarify the attitude towards supplemented experimental data and the original intent of review of experimental data. On the opportune occasion of the new round of revision of the Guide-

lines, these major issues in the field of chemistry are solved through amendment.

2. Amendments and explanations thereof

The amendment to the provision on examination of invention applications in the field of chemistry is about experimental data supplemented after the date of filing as provided in Part II, Chapter 10 “some provisions on examination of invention applications in the field of chemistry”, Section 3.4 “specific mode for carrying out the invention”, to be specific,

First, clarify misunderstandings that may be caused by wordings of the current Guidelines, and explicitly require examiners to conduct examination on experimental data supplemented by applicants.

As for the experimental data supplemented later, according to the first-to-file principle adopted in China, the current Guidelines require that examination is made “on the basis of the disclosure contained in the original description and claims”, which means the later supplemented data shall be examined under the first-to-file principle. Needless to say, in a “first-to-file” country, decision on patentability and examination of patent eligibility requirements shall be made based on the disclosure of application documents as originally filed. Since the later supplemented experimental data are not a part of the documents as originally filed, it is required to examine the relation between the later supplemented data and the originally disclosed content on the basis of the originally disclosed content, rather than the content submitted after the date of filing.

Nevertheless, in an attempt to further explain and emphasize the above principle, the current Guidelines state that “any embodiment and experimental data submitted after the date of filing shall not be taken into consideration”. The wording “not taken into consideration” may indicate that examiners will not examine the experimental data submitted after the date of filing, which gives rise to misunderstandings. The wording “not taken into consideration” is deleted, and accordingly the above provision is amended as “experimental data submitted after the date of filing shall be examined by an examiner”, in order to guarantee the party’s right to file evidence under the patent law and positively clarify such misunderstanding.

Second, adhere to the principle of examination of supplemented data as stipulated in the current Guidelines, and clarify the application of the said principle during examination of supplemented experimental data.

As stated above, in light of the first-to-file system, examination of supplemented experimental data shall be conducted “on the basis of the disclosure contained in the original description and claims” as required by the current Guidelines. The characteristic of the supplemented experimental data is prominently embodied by their non-disclosure in the documents as originally filed. How could we examine supplemented experimental data “on the basis of the disclosure contained in the original description and claims”? It is added to the current Guidelines that “the technical effect to be testified by supplemented experimental data shall be derivable by those skilled in the art from the content disclosed in a patent application”, with an objective of strengthening the operability of the examination principle under the first-to-file system.

Third, look into the current Guidelines to move the provisions relating to supplemented experimental data in Section 3.4 to the newly added Section 3.5.

The title of Section 3.4 of the current Guidelines is “specific mode for carrying out the invention”, which highlights the significance of embodiments in the field of chemistry in the introduction part, followed by point (1) requiring the number of embodiments provided in the description, and point (2) regarding supplementation of embodiments and experimental data after the date of filing, which is inconsistent with the title of Section 3.4. By reason of the foregoing, Section 3.5 “Supplemented experimental data” is added and the above-mentioned point (2) shall be moved to Section 3.5.

3. Reflections

The core part of the Amendment is to amend that supplemented experimental data are conducted “on the basis of the disclosure contained in the original description and claims” to that “the technical effect to be testified by supplemented experimental data shall be derivable by those skilled in the art from the content disclosed in a patent application”.

It is held that the precondition for amending the provision concerning supplemented experimental data is to identify the issues it may cause, that is, to know the similarities and differences between the supplemented experimental data and the experimental data already recited in the description, and to know what issue may arise from the fact that supplemented data are submitted after the date of filing as evidence, rather than in the form of replacement sheets.

For the sake of testifying some technical effect, both data recited in the description and those submitted later shall meet such the common requirements for evidence as authenticity, legitimacy, relevance and probative value, which apply to examination of all evidence. Thus, it is unnecessary to set forth special provisions relating to such common issues. As for later supplemented experimental data, it is of great necessity to make clear the relation between those data and the inventive work completed by the time of filing, on which examination is based and which is embodied in the originally filed documents, and whether the content of the later supplemented experimental data can be considered as a part of contribution made by the invention to the pertinent field so as to be conducive to the grant of patent right for the invention.

Similar requirements can be found in laws and regulations and in judicial practice of other countries.

For instance, the European Patent Office (EPO) requires that “care must be taken, however, whenever new effects in support of inventive step are referred to. Such new effects can only be taken into account if they are implied by or at least related to the technical problem initially suggested in the originally filed application”, and “a new effect may be considered as evidence in support of inventive step, provided that this new effect is implied by or at least related to an effect disclosed in the originally filed application”³. The Japan Patent Office (JPO) provides that when advantageous effects in comparison with cited documents are recited in the description, or, though not clearly recited, can be derived by those skilled in the art from the description or drawings, the effects alleged or asserted in the observations shall be taken into consideration. However, if the advantageous effects in comparison with cited documents neither are recited in the description, nor can be derived by those skilled in the art from the description or drawings, the effects alleged or asserted in the observations shall not be taken into consideration.⁴

The Supreme Court and Higher Court of South Korea held that in principle, if functional effects are not depicted in the description, then such effects shall not be considered in the assessment of inventive step of an invention. Although the functional effects of the invention are not depicted in the description, if the technical effects can be derived by those skilled in the art from the description, such effects shall be taken into account when assessing inventive step.

In addition, in *In re Zenith*, the USPTO did not accept

the supplemented experimental data because the unexpected reduced hypotension effect was not definitely recited in the description. However, the U.S. Court of Appeals for the Federal Circuit overruled the USPTO’s decision, holding that said effect must be taken into account on the grounds that the effect, though not clearly recited in the description, can intrinsically and inherently result from the usage of the compound as a tranquilizer. The USPTO also emphasized that there should be a factually and legally sufficient connection between the objective evidence of nonobviousness and the claimed invention so that the evidence is of probative value in the determination of nonobviousness.⁵

In recent years, the Supreme People’s Court of China has clearly expressed its point of view in a series of cases, e.g., when a patent applicant or patent holder is intended to prove the inventive step of the claimed technical solution over the prior art by filing comparative experimental data, the data can be accepted only on the premise that they are directed to the technical effect definitely recited in the documents as originally filed.if the technical effect to be proved by the experimental data is neither recited nor testified in the documents as originally filed, the experimental data cannot serve as the basis for assessing the inventive step.⁶ As another example, if those skilled in the art cannot conclude that the technical effect to be proved by supplemented experimental data has been recited in the description after reading the description and the Pharmacopoeia 2000, then the technical effect to be proved by the supplemented experimental data should not be taken into account when assessing the inventive step of claim 1.⁷ In addition, the technical contribution made by the claimed invention shall be sufficiently disclosed and recited in the description, and the technical contribution not recited in the description cannot function as the basis for patent protection. In other words, if the facts to be testified by technical literature or experimental data submitted after the date of filing are not recited in the application documents as originally filed, then those evidence should not usually be used as the basis for judging whether the invention-creation is patentable because of the failure to prove the completion of invention before the date of filing.⁸

Before that, the patent administration department of China also put forward similar views. For instance, (supplemented) comparative experimental data must be used for proving the technical effect definitely recited in the originally filed documents. If the original description discloses no

experiments that testify the technical effect of the invention in some aspect or to some extent, though the description contains conclusive or assertive statements regarding the technical effect, the experimental data or embodiments for testifying the technical effect as provided by the applicant after the date of filing or in response to the Office Action should not be accepted.

It can be deduced that the patent offices and courts in different countries reach an agreement on that the technical effect to be proved by the supplemented data must be based on the original description, with the only difference lying in the wordings in this regard.

The amended Guidelines express the above meaning by the following sentence: “the technical effect to be testified by supplemented experimental data should be derivable by those skilled in the art from the content disclosed in the patent application” for the following reasons:

(1) First of all, emphasis is placed on taking the facts disclosed in the application as a basis so as to meet the requirement of the first-to-file system. The wording “the content disclosed”, rather than “the content recited”, is adopted because the content recited in general language or in an exaggerated and falsified manner cannot function as a factual basis for judgment.

(2) Pursuant to the original meaning of the provisions of the current Guidelines, on the premise of reviewing the experimental data as evidence during the process of examination, the amendment is made with focus on the relation between the technical effect to be proved by the experimental data and the application documents, instead of the relation between the experimental data *per se*, experimental method and the originally filed documents. Otherwise, it is likely to result in an incorrect action of not accepting the technical effect to be proved by the experimental data or experimental method given that the experimental data or method is not recited in the application documents. This, in essence, is another way to refuse considering the experimental data supplemented at a later time.

(3) It is a principle made from the perspective of the person who is making the determination. Whether such technical effect can be accepted ultimately depends on the judgment of those skilled in the art as envisaged by examiners. Although such judgment shall be made on the basis of the originally filed documents, external representations and conditions, such as whether the technical effect is literally recited in the originally filed document, whether it is clearly

recited, in which way it is recited, whether there are qualitative or quantitative data in support of the technical effect, are factors that need to be taken into consideration by those skilled in the art in the process of judgment. The judgment-based conclusion, however, is drawn depending on far more factors than those listed; otherwise, the judgment may be mistakenly confined to formalities.

(4) In the process of judgment, the decision is made from the viewpoint of those skilled in the art, because they are capable of comprehending the description and analytically studying the experimental data with their specialized knowledge, as well as extracting technical information contained in the document, thereby avoiding making a judgment in a mechanical and rigid way.

(5) Examination on patentability requirements is conducted on the basis of facts disclosed in a patent application, i.e., associated with the disclosure contained in the originally filed document. This explains why the provisions relating to supplemented experimental data are included in the Section concerning the disclosure of the description. Meanwhile, it is advocated that patentability requirements shall be viewed systematically with reference to internal relations between different legal provisions. Where an applicant is intended to prove some technical effect of an invention by submitting supplemented experimental data, determination of the effect is the factual basis for application of relevant legal provisions. No matter which provision applies, if the applicant is intended to prove some technical effect of the invention with supplemented experimental data submitted after the date of filing, it is required to judge whether the requirement of the first-to-file principle is met according to the above amended content, in addition to checking whether the data are authentic and able to prove the technical effect.

4. Conclusion

The Guidelines are amended for the sake of clarifying the original meaning of the current provisions. It is clearly required that later supplemented experimental data should be reviewed and the first-to-file principle should be adhered to when reviewing the supplemented experimental data. The amended solutions do not involve the change of examination criteria, so the utmost importance shall still be attached to the drafting of the originally filed documents.

As can be seen, more attention shall be paid to scientific and reasonable application of examination criteria. By making clearer the role of the original examination criteria in

supplemented experimental data review, it can provide an explicitly worded guidance to the party who wants to prove something by supplemented experimental data, so as to better safeguard its legitimate rights and interests under a legal framework.

V. Interpretation of amendments to provisions on examination of request for declaration of invalidity

1. Background

The proceeding for declaration of invalidity is a procedure during which the validity of a patent is reconfirmed. As a part of patent system, the fundamental purpose of the proceeding is to protect invention-creations and stimulate technological innovations. To this end, the proceeding provides patent holders with opportunities to amend patent documents and redefine the scope of protection of patents for obtaining more stable rights. In Part IV, Chapter 3, Section 4.6.2 “Manners of Amendment” of the current Guidelines, it is provided that “the specific manners of amendment are generally limited to deletion of a claim, combination of claims, and deletion of a technical solution”, wherein “combination of claims” means that “two or more claims dependent on a same independent claim in the issued text and having no relation of dependency are combined together”. In practice, some innovative entities think that the above provision strictly restricts the ways to amend claims in invalidation proceedings, which is not advantageous to effective attack against petitioners in invalidation proceedings, such that it is desirable that patent documents can be amended in a more flexible way - technical features recited in the description are allowed to be added to the claims and obvious errors are allowed to be corrected. In order to meet the requirements on improvement of the system for amending the granted patent documents as stipulated in the Document GF No. 71 [2015], amendment of patent documents in the invalidation proceedings is listed as one of the major issues to be solved through amending the Guidelines.

2. Amendments

(1) To allow patent documents to be amended as appropriate

Based on the three manners of amendment to claims, i.e., “deletion of a claim, combination of claims, and deletion of a technical solution”, as provided in Part IV, Chapter 3,

Section 4.6.2 of the current Guidelines, “combination of claims” is amended to “further limitation to a claim”, and “rectification of obvious errors” is added to the newly amended Guidelines. Meanwhile, the definition of “combination of claims” is deleted from Part IV, Chapter 3, Section 4.6.2 of the current Guidelines, and “further limitation to a claim” is defined therein as “further limitation to a claim means that one or more technical features recited in other claims are incorporated into the claim so as to narrow down the scope of protection thereof”. Besides, “claims amended by way of combination” in Part IV, Chapter 3, Section 4.2 “Addition of Grounds for Invalidation” of the current Guidelines is amended to “claims amended by ways other than deletion” for the sake of consistency, and the expression “amend the claims by way of combination” in Part IV, Chapter 3, Section 4.6.3 “Restrictions to Manners of Amendment” is amended to “amend the claims by ways other than deletion” for the sake of consistency.

(2) Rectify provisions concerning addition of grounds for invalidation and supplementary evidence

While allowing patent documents to be amended as appropriate, in order to avoid undue postponement of examination procedure, the newly amended Guidelines make further clarification on the basis of the provisions in Part IV, Chapter 3, Section 4.2, Paragraph (2) (i), stipulating that when a petitioner adds grounds for invalidating “claims amended by ways other than deletion by the patentee”, the grounds for invalidation should be added merely for “amended content”. Meanwhile, the provision that the petitioner is allowed to present supplementary evidence within the time limit for “claims amended by way of combination... by the patentee” is deleted from Part IV, Chapter 3, Section 4.3.1, Paragraph (2)(i) of the current Guidelines. The petitioner is only allowed to supplement evidence within the prescribed time limit in response to the counter-evidence presented by the patentee.

3. Specific explanations to amendment

(1) Manners of amendment to claims in invalidation proceedings

According to the above amendments, the claims can be amended in the invalidation proceedings in the following four manners: deletion of a claim, deletion of a technical solution, further limitation to a claim and rectification of obvious errors.

When making further limitation to a claim, the patentee can incorporate either one technical feature or a plurality of

technical features of other claims, and also either a technical feature of a set of claims dependent on the same independent claim or a technical feature of another set of claims dependent on a different independent claim. In comparison with the provisions of the current Guidelines requiring that claims amended by way of combination shall be dependent on the same independent claim and the new claim shall contain all the technical features of those combined claims, the manners of amendment in the amended Guidelines are more flexible such that the patentee can improve the stability of patents by incorporating technical features recited in the claims for the sake of effective protection of intelligent contribution. It should be noted that incorporation of technical features recited in other claim does not mean that the technical features recited in the claims can be combined arbitrarily. The new claim shall meet the requirements of relevant laws and regulations, such as Article 33 of the Patent Law of China.

For an obvious error in a claim, the patentee is allowed to rectify the obvious error when those skilled in the art, based on their cognitive capabilities, can locate the obvious error in a technical feature of the claim immediately after reading the claims, description and drawings, and meanwhile the true meaning of the technical feature can be definitely known from the relevant content indicated in the description and drawings in combination with common technical knowledge of those skilled in the art. If, the patent is maintained as valid after the rectification of the obvious error of the claim, it shall be published in the form of off-prints of patent documents, so as to avoid patent disputes arising from the difficulties the public are experiencing in knowing the corrective interpretation of the obvious error which was only published in the examination decision. In addition, Rule 69.2 of the Implementing Regulations of the Patent Law of China reads that the patentee for the patent for invention or utility model may not amend his or its description or drawings.

“Ways other than deletion” as mentioned in the newly amended Guidelines refer to “further limitation to the claim” and “rectification of obvious errors”. Therefore, the petitioner can add the grounds for invalidation within the prescribed time limit when the claim is further limited or the obvious error in the claims is rectified. The timing for rectifying the obvious error is subject to regulation of the provisions under Part IV, Chapter 3, Section 4.6.3 of the current Guidelines.

(2) Provisions concerning addition of grounds for invalidation and supplementary evidence

It is provided in Rule 67 of the Implementing Regulations of the Patent Law of China that “after a request for invalidation is accepted by the PRB, the petitioner may add reasons or supplement evidence within one month from the date when the request for invalidation is filed. Additional reasons or supplementary evidence which are submitted after the specified time limit may be disregarded by the PRB.” The purpose of limiting the timings for adding reasons or supplementing evidence by the petitioner is to prevent the petitioner from being reluctant to provide invalidation grounds and produce evidence within the statutory time limit, and making a “sudden attack” using evidence after the patentee’s arguments. It is provided in Part IV, Chapter 3, Section 4.2, Paragraph (2) (i) of the current Guidelines that “for claims amended by way of combination by the patentee”, grounds for invalidation is allowed to be added within the prescribed time limit, in an effort to provide the petitioner with opportunities to change the grounds for invalidation according to the amendments made by the patentee, rather than allowing the petitioner to add grounds for invalidation that should have been presented before the amendment made by the patentee. As a result, the revised Guidelines clearly stipulate that where the petitioner adds the grounds for invalidation for “claims amended by ways other than deletion by the patentee”, the grounds for invalidation that are added shall be merely directed to “the amended contents”. For instance, independent claim 1 recites technical features A and B, the additional technical features of dependent claim 2 are C and D, and the additional technical features of dependent claim 3 are E and F. If the new claim 1 after amendment includes technical features A, B, C and F, the petitioner can add a ground for invalidation, saying that the amendments to claim 1 extend beyond the scope of the original disclosure or are not supported by the description. However, the petitioner cannot add a ground that a term in technical feature F is ambiguous.

According to the SIPO’s Decision to Amend the Guidelines for Patent Examination, after the claim is amended by the patentee, the petitioner is not allowed to supplement evidence for the amended claims on the grounds that, for effective dispute resolution, it is necessary for the petitioner to consider the patent to be requested for declaration of invalidity as a whole, get to know its core technologies, and file

corresponding evidence at the time of filing the request for declaration of invalidity or within one-month statutory time limit. When a claim is amended through addition of a technical feature recited in other claim, since the add technical feature has been recited in the claim set, the petitioner only needs to adjust the combination of evidence submitted, with no need of supplementing other evidence. Such evidence does not include common knowledge. The evidence of common knowledge can be furnished by the closure of oral proceedings as provided for in Part IV, Chapter 3, Section 4.3.1, paragraph (2)(ii) of the current Guidelines.

4. Reflections

Patent documents can be amended in invalidation proceedings, which is the legitimate right enjoyed by the patentee according to law and is conducive to further improvement to the granted document for better protection of intelligent contributions and for presentation of a more stable patent right with clearer scope of protection to the public in invalidation proceedings. On the other hand, while patentees are given more freedom to amend the claims, attention shall be paid not to give rise to imbalance of interests between the patentee and the petitioner on behalf of the general public.

First, the issued patent claims have the public notice function. Amendments to patent claims in invalidation proceedings shall not impair the public's reliance interest. Ever since the date of issuance of an invention or utility model, the claims thereof clearly delimit the scope of protection of the patent. The technical solution of the invention or utility model is published in independent claims and a series of claims dependent thereon. When facing the risk of invalidity resulting from an overly broad drafting of claims, the patentee can amend the claims to further limit their technical solutions and narrow down the scope of protection thereof. On the other hand, the description and claims are different from each other in terms of legal status and function, and the description usually recites the technical content in a more detailed manner compared with the claims. But if the patentee does not define the technical content in the claims for the sake of protection during the prosecution stage, further limitation to the claims with features recited in the description and drawings in the invalidation proceedings will surely impair the public's reliance on and expectation of the granted patent documents.

Second, unlike invalidation proceedings, the patent grant procedure, especially the procedure for granting pat-

ents for inventions through substantive examination, is the basic process for determining the scope of protection of patents and publishing the same to the general public, during which the patentees are given sufficient opportunities to deploy, adjust, and amend its patents. If the patentee is allowed to add the technical features originally recited in the description to the claims in the invalidation proceedings (although it is likely that the amendments may not go beyond the scope of the description and claims as originally filed and may narrow down the scope), the invalidation proceedings will become the same as the substantive examination procedure, which will nullify the value of the patent grant procedure and will more likely render the patentee reluctant to arrange and amend the claims during the patent grant procedure.

According to the provisions concerning manners of amendment to patent documents in the SIPO's Decision to Amend the Guidelines for Patent Examination, under normal circumstances, it is allowable to further limit the claim using the technical features recited in the claims, or rectify obvious errors in the claims according to relevant contents of the description and drawings, rather than further limit the claim using the technical features recited in the description and drawings. Adjustment to manners of amendment to patent documents not only satisfies the desire of innovative entities for seeing a more flexible manner of amending application documents (rendering the invalidation proceedings valuable in reestablishing the patent right and enhancing the stability of the patents), but also takes into account the balance of interests between the patentee and the general public, safeguarding the value of the grant procedure and the public notice function of the granted documents.

VI. Interpretation of amendments to provisions on procedures for consultation and photocopying of patent application files, and termination thereof

1. Background

Along with China's economic growth and social development, strengthening the protection of intellectual property rights and enhancing self-innovation capabilities are inherent requirements for speeding up the transformation of

the mode of economic development and implementing the innovation-driven development strategies. Under new situations, the patent-related work is facing new tasks and more demanding requirements. The State Council explicitly emphasized in the Document GF No.71 [2015] that “strengthen the openness and utilization of IP information; timely disclose patent examination information according to law; and improve the public services network of IP information.”

In recent years, China has achieved spectacular progress and great accomplishments in patent examination and protection. However, with the development of science and technology and in facing the fierce market competition, the constant emergence of new patent-related issues and new demands of innovative entities call for higher requirements for administration and service functions of the patent administration department. The innovative entities put forward reasonable concerns and demands in terms of patent examining procedures, and it is necessary to give an active response at the policy level, clarifying examination criteria, performing administrative duties according to law and enhancing the level of public service.

Furthermore, there is an increasingly strong demand for strengthened patent protection and enhanced law enforcement. In face of difficulties in safeguarding rights of patentees and difficulties in law enforcement, in order to protect the legitimate rights and interests of patentees, boost the efficiency of law enforcement and effectively enforce the courts’ judgments, the revised Civil Procedure Law came into effect as of 1 January 2013, for setting more requirements on relevant entities’ assistance in performing obligations, such as seizure and asset freezing. It is necessary for the SIPO, as a patent administration department under the State Council, to guarantee a smooth and effective connection between patent administrative procedures and judicial proceedings for the sake of enhanced efficiency and reduced right-safeguarding costs.

2. Amendments

(1) Amendments to Part V, Chapter 4 (Patent Application Files) of the Guidelines

Part V, Chapter 4, Section 5.2 of the current Guidelines include 5 paragraphs, wherein paragraphs (1) to (4) specify the contents allowed for consultation and photocopying under different legal statuses of patent applications or patents, and paragraph (5) is a miscellaneous provision. Paragraphs (2), (3) and (5) are amended.

a. Delete the expression “before the date of publica-

tion” from Section 5.2, Paragraph (2)

It is provided in Part V, Chapter 4, Section 5.2, Paragraph (2) of the current Guidelines that for dossiers of a patent application for invention which has been published with no grant of patent right being announced, only the contents of the dossiers available before the date of publication are allowed for consultation and photocopying. Patent applications for invention that have been published but not granted include those undergoing substantive examination and those that are rejected, deemed as having been withdrawn or initiatively withdrawn during the phase of substantive examination. As regards such patent applications for invention, only the contents available before the date of publication are allowed for consultation and photocopying, which is not good for the public’s timely acquisition of the information relating to substantive examination procedure for patent applications or supervision of patent examination. SIPO, as a specialized organization for patent examination, shall conduct examination following the principle of “openness, transparency and fairness” under the supervision of the public. Disclosure of information relating to substantive examination procedure for a patent application is of great importance and directly decides the ultimate establishment of rights. Therefore, the provision that allows the public to consult and photocopy patent application dossiers is added, and the term “before the date of publication” is deleted from Part V, Chapter 4, Section 5.2, Paragraph (2), so as to expand the scope of consulted and photocopied dossiers to include those available during the substantive examination procedure.

b. Clarify that notifications, research reports and decisions sent to the applicant during the substantive examination procedure can be consulted and photocopied

As indicated in Part V, Chapter 4, Section 5.2, Paragraph (2), the public is allowed to consult and photocopy notifications, research reports and decisions issued to the applicants during the substantive examination procedure. According to the current Guidelines, the public can only consult and photocopy application documents and observations filed by the parties concerned before the date of publication, as well as notifications and decisions issued by the SIPO. As regards patent applications for invention “during the substantive examination procedure” and those that have been finally “rejected”, or are “deemed as having been withdrawn” or “initiatively withdrawn”, the public is prohibited from having access to office actions and deci-

sions issued by the SIPO during the substantive examination procedure, which neither complies with the basic principle that an examination procedure shall be open and transparent, nor meets the public's requirements for consultation and photocopying of dossiers of patent applications for invention which have been published but not granted. Moreover, pursuant to the provisions of the current Guidelines, search reports can never be consulted or photocopied. A search report made during the substantive examination procedure will be sent to the applicant as an attachment to an office action, and is deemed as a part of the office action. At present, search reports of patent applications filed in other countries are available and accessible at their patent examination organizations, that is, patent examination organizations in other countries allow the public to consult search reports. As a basis for evaluating patentability during the substantive examination procedure, search reports express important information during the patent examination procedure, and to make search reports open to the public enables examination results achieved by patent examiners to be further shared and assists the public in better understanding and acquiring patented technological contents. By reason of the foregoing, search reports shall be allowed to be consulted and photocopied by the public. Thus, as for dossiers of patent applications for invention that have been published but not issued for the grant of patent, it is allowable to consult and photocopy notifications, search reports and decisions sent to the applicants during the substantive examination procedure. Additionally, the Global Dossier Portal System for Patent Examinations launched in 2012 has provided the public with a service for retrieving office actions, search reports and decisions issued during the substantive examination procedure. The amendments to the current Guidelines provide the legal basis for the scope of documents that are available in that system.

c. Add "priority documents" and "search reports" to Part V, Chapter 4, Section 5.2, Paragraph (3) and expand the scope of documents allowed to be consulted and photocopied to include more than the applicant's observations

For similar reasons presented in item b, "search reports" are included into the contents, which are allowed to be consulted and photocopied, of dossiers of patent applications for which the grant of patent has been announced.

According to the opinions solicited from the public, the public want to consult and photocopy "priority documents", especially those that are not published. For instance, it is re-

quired to check the priority documents in the invalidation proceedings so as to decide whether the right of priority exists. In consideration of the reasonableness of the requirement, through subsequent repeated argumentation and with reference to relevant approaches adopted by patent examination organizations in other countries, the approach that "priority documents" are included into the contents, which are allowed to be consulted and photocopied, of dossiers of patent applications for which the grant of patent has been announced is in compliance with the basic concept of the patent system, namely, "disclosure in exchange for protection". In addition, the words "the text" are deleted from the sentence "the text of the observations submitted by the applicant or the parties concerned in response to the notifications" appearing at the end of Paragraph (3). The scope of documents that are allowed to be consulted and photocopied is expanded to include amended documents submitted simultaneously with the observations.

After the grant of patent right, "search reports", "priority documents", especially those that are not disclosed, and amended documents submitted together with the applicant's observations in response to the notifications are helpful in full understanding of patented technical solutions and the examination and grant procedures, and enhancing the transparency of the examination procedure.

d. Delete Part V, Chapter 4, Section 5.2, Paragraph (5)

It is provided in Part V, Chapter 4, Section 5.2, Paragraph (5) of the current Guidelines that "except for the contents mentioned above, consultation or photocopying of other documents shall not be allowed", which is over-strict and cannot meet the requirement of the public for document consultation and photocopying. Principles of consultation and photocopying have been explicitly stipulated in Part V, Chapter 4, Section 5.1. If the contents requested for consultation and photocopying do not fall within the scope delimited in Part V, Chapter 4, Section 5.2, Paragraphs (1) to (4), the principles of consultation and photocopying stipulated in Part V, Chapter 4, Section 5.1 can be followed to determine whether or not the content is allowed to be consulted and photocopied. As a result, the provision that "except for the contents mentioned above, consultation or photocopying of other documents shall not be allowed" is deleted from Part V, Chapter 4, Section 5.2, Paragraph (5).

(2) Amendments to Part V, Chapter 7 (Time Limit, Restoration of Right and Suspension of Procedure) of the Guidelines

a. Amend the provisions on time limit of suspension due to assistance in execution of property preservation in Part V, Chapter 7, Section 7.4.2

It is provided in Section 7.4.2 of the current Guidelines that for the suspension due to assistance in execution of property preservation asked by the People's Court, the suspension period is generally six months. The suspension shall cease six months after the date of receiving the civil order. These provisions were set forth by the Supreme People's Court on 28 January 2000 in the "Reply to the SIPO's Letter on How to Assist in Execution of Property Preservation Rulings Issued by Court" and have been in use without revision. In practice, the six-month suspension period cannot meet the requirements of the judicial proceedings. During the implementation of an effective legal document, the court must determine that the party who is subject to enforcement action is indeed unable to perform obligations in other manners, and shall commission an appraisal company to evaluate the patent application or patent and an auction company for auction. Since the patent evaluation and auction industries cannot satisfy the needs, it is impossible for the court to deal with related cases timely. The suspension period shall be modified so as to ensure the safe and effective progress of the judicial proceedings. Pursuant to Articles 114 and 242 of the revised Civil Procedure Law taking effect in 2013, the SIPO, as an entity obliged to assist in investigation or enforcement, shall suspend the procedure in relation to the preserved patent application right or patent right after receiving a civil judgment and a notification on assistance in enforcement from the people's court. Duration of property preservation is also stipulated in Article 487 of the "Interpretation of the Supreme People's Court on the Application of the Civil Procedure Law of the PRC" in 2015. For better fulfillment of the obligation to assist in execution of property preservation, the provision that "the suspension period is generally six months. The suspension shall cease six months after the date of receiving the civil order" is deleted from Section 7.4.2. Meanwhile, it is clearly stated that "for the suspension due to assistance in execution of property preservation asked by the People's Court, the Patent Office shall suspend the relevant procedure according to the duration of property preservation indicated in the civil order and the Notification on Assistance in Execution."

b. Amend the provisions on continuation of the time limit of suspension in Part V, Chapter 7, Section 7.4.2

In light of the provisions in Part V, Chapter 7, Section 7.4.2 of the current Guidelines, where the People's Court orders to continue measures of property preservation, it shall serve the Patent Office with a Notification on Assistance in Execution for keeping on the preservation before the expiration of the time limit for suspension. The suspension may be extended six months if the Notification on Assistance in Execution complies with the regulations set forth in Section 7.3.2.1 of this chapter after being checked. For similar reasons as stated in item a, "the suspension may be extended six months" shall be amended to "the suspension may be extended" for a time limit that is the same as the duration of property preservation indicated in the Notification on Assistance in Execution.

c. Delete the provision on the time limit for preservation continuously decided by the court from Part V, Chapter 7, Section 7.4.2

In light of the provisions in Part V, Chapter 7, Section 7.4.2 of the current Guidelines, the time limit for suspension shall not exceed 12 months for a preservation verdict made for the same case by the same court during the execution procedure. If the preservation verdict is made during the trial, the time limit for suspension decided by SIPO can be extended accordingly. The provision is set forth with an original objective of preventing the party concerned from maliciously utilizing the suspension to affect the normal examination and approval procedures of patent applications, which may result in obvious unfairness. The provision is over-strict and cannot meet the requirement of judicial proceedings. According to the provisions in the Civil Procedure Law and the Implementing Regulations of the Patent Law, SIPO is obliged to suspend the procedure in relation to the preserved patent application right or patent right after receiving a civil judgment and a notification on assistance in enforcement from the people's court; where the People's Court orders to continue adopting measures of property preservation when the time limit for preservation expires, SIPO shall go on suspending the relevant procedure. Thus, the above provision is deleted.

d. Adjust the time limit of suspension in the invalidation proceedings in Part V, Chapter 7, Section 7.4.3 for the sake of consistency

In light of the provisions in Part V, Chapter 7, Section 7.4.3 of the current Guidelines, with respect to patents in the invalidation proceedings, the time limit for suspension as requested by the party concerned in a dispute over the

ownership of right or asked by the People's Court to assist in execution of property preservation shall not exceed one year. The time limit for assistance in execution of property preservation in Section 7.4.2 is amended to "suspend the relevant procedure according to the time limit of property preservation indicated in the civil order and the Notification on Assistance in Execution", which also applies to the time limit of suspension in the invalidation proceedings. Thus, the phrase "or asked by the People's Court to assist in execution of property preservation" is deleted from Section 7.4.3 accordingly. As such, the provisions in Section 7.4.3 shall be set forth as follows: "with respect to patents in the invalidation proceedings, the time limit for suspension as requested by the party concerned in a dispute over the ownership of right shall not exceed one year. The SIPO will resume the relevant procedures on its own initiative once the time limit of suspension expires."

e. Amend the time limit of the preservation request in the waiting list prescribed in Part V, Chapter 7, Section 7.5.2 for the sake of consistency

It is stipulated in Section 7.5.2 of the current Guidelines that the time limit of the preservation request in the waiting list is six months. For the sake of consistency with the amendment to the time limit of suspension due to execution assistance of property preservation prescribed in Section 7.4.2, the time limit of the preservation request in the waiting list in Section 7.5.2 is also amended accordingly so as to make the time limit of the preservation request in the waiting list to be consistent with the time limit of suspension. Thus, the relevant provision in Section 7.5.2 is amended as "where there is a waiting list in turn of the preservation request, the preservation request on the top of the waiting list shall be executed from the date on which the previous preservation comes to an end. The time limit of the preservation is the time limit of property preservation indicated in the Civil Ruling and the Notification of Execution Assistance"

3. Reflections

The Guidelines involve elaborated interpretation of the Patent Law and the Implementing Regulations of the Patent Law, and function as the basis for administration of the SIPO and PRB according to law. For dealing with patent-related applications and requests in an objective, fair, accurate and timely manner, we need to strictly abide by the provisions set forth in the Guidelines, pay attention to legal amendments and show concern for the demands of applicants, right holders and the public, and meanwhile amend

the Guidelines as appropriate with reference to the accumulated experience learnt from the practice.

VII. Conclusion

1. Subsequent arrangements

After this Amendment, the SIPO will guide examiners and the public to have a correct understanding of the amendments to the Guidelines through interpretations or seminars, to ensure consistent implementation of examination criteria, and promote enforcement, application and popularization of the amended Guidelines.

2. Amendment Plan for the Guidelines

In addition to the amendments contained in the SIPO's Decision to Amend the Guidelines for Patent Examination, the subject groups and the compilation and editing groups have made great efforts in research and studies, such as local designs, flowchart and formalities of E-approval system, retrieval during the substantive examination of invention, the substantive examination procedure, and examination on inventive step in the field of chemistry. For heatedly discussed issues that are still controversial and need to be resolved in practice, we will keep on improving the normal amendment mechanism based on constant researches and studies, in order to bring up proposed solutions and resolve relevant issues timely. In addition, the overall amendment to the Guidelines will go along with the Fourth Amendment to the Patent Law and the Implementing Regulations of the Patent Law. ■

The authors: SIPO

¹ Interpretations of recent amendments to the Guidelines are those of the experts.

² See EPO 2000/05/19: Examination of "business method" application [EB/OL].

³ See the Guidelines for Examination of the EPO and T386/89 and T184/82.

⁴ See the Examination Guidelines of the JPO.

⁵ See the Manual of Patent Examining Procedure of the USPTO.

⁶ See the Supreme People's Court's Judgment No. Zhixingzi 41/2012.

⁷ See the Supreme People's Court's Judgment No. Zhixingzi 86/2011.

⁸ See the Supreme People's Court's Judgment No. Zhixingzi 84/2014.