6 Design System Corresponding to Design Protection in the Digital Society ^(*)

The functions of individual products have become uniform in specific fields in recent years, and it has become more difficult to differentiate products based only on the technologies of the products. Consequently, it has become increasingly important to differentiate products based on sophisticated designs and user-friendly GUIs.

In addition, it has been pointed out that applicants suffer a procedural and cost burden for obtaining rights as it is necessary to file applications and obtain rights for individual articles in order to enjoy protection under the current Design Act. In particular, for electronic devices, there is an increasing number of cases where a common GUI has been adopted for electronic devices of different kinds in order to enhance user convenience. Therefore, it is necessary to consider the propriety of introducing a protection mechanism whereby the right obtained by filing one application extends to multiple articles.

Given this factor, we conducted this study with the aim of studying and analyzing changes in the actual conditions of development of designs, mainly screen designs, and the need for design protection in light of the perspective of international harmonization and international competitiveness, to prepare the basic materials to be used in considering the design system to protect and promote design creation activities in the digital society.

I Introduction

1 Purpose and background of this study

Regarding protection of screen designs of electronic devices, etc. which have been undergone remarkable development in recent years, the Design Act was partially revised in Japan in 2006, and thereby, "graphic images on a screen that are provided for use in the operation carried out in order to enable an article to perform its functions" was made subject to protection as a part of an article, in addition to "figures, etc. that are indispensable in light of the establishment of an article" which had previously been subject to protection.

Under the current design system, a screen design displayed on a computer (general-purpose machine) falls under the condition of having the computer fulfill its information processing function, which is its original function; therefore, it is understood as not being subject to protection. In addition, as a screen design is protected as a part of an article, it is necessary to file an application and obtain rights with respect to each article for which the screen design is used. Moreover, screen designs after addition or changes to a screen design of an electronic device through version-up, updating, or addition of an application after the selling of the electronic device are not subject to protection.

which were not assumed at the time of the revision of the Act in 2006 have been emerging along with the subsequent development of information processing technology, etc. Examples of such forms include expansion of a service to add or change a screen design after the sale of a product, expansion of use of screen designs separately from articles, and the change to increasingly multifunction or general-purpose electronic devices. Therefore, the current design system may be becoming unfit for the actual conditions. On the other hand, looking at other countries, the subject-matter of protection is scheduled to be expanded to cover the screen designs themselves in South Korea while screen designs themselves have already been subject to protection in the European Community. The gap with other countries in terms of the subject matter of protection has been widening.

In order to respond to such recent changes in the status of use of screen designs in electronic devices and eliminate the differences with other countries in terms of the subject-matter of protection, it is necessary to consider the expansion of protection of screen designs and the integrity of an article and a design as a requirement for protection under the Design Act which is the premise of the expansion.

2 Problems considered in this study

In this study, we considered the design system corresponding to the actual conditions of

However, forms of use of a screen design

^(*) This is an English translation of the summary of the FY2011 JPO-commissioned research study report on the issues related to the industrial property rights system.

development and use of screen designs with a focus on (1) to (3) below in light of the aforementioned background and opinions of industrial circles, etc.

- (1) Requirement of integrity with an article
- (2) Function/operation requirements
- (3) Other requirements (effect of a design right, description requirements of drawings, and data format)

3 Method of conducting this study

In this study, we conducted the following: (1) meetings of a study committee consisting of persons of learning and experience who have expertise, intellectuals in industrial circles, etc. (four meetings in total), (2) questionnaires and interview surveys intended to understand user's requests and improvements in cases where the scope of protection is expanded as well as the actual conditions of design activities of Japanese companies, etc., and direct or potential needs, etc. for revisions of the design system, including revision of the scope of protection, (3) overseas interview surveys (in the United States, Europe, and South Korea) in order to understand the actual conditions of development of screen designs and the actual conditions of utilization of intellectual property rights (design law, copyright law, etc.) for screen designs in other countries, and (4) studies of documents and court precedents in Japan and other countries.

I Current Situation of Protection of Screen Designs

1 Current situation of protection of screen designs in other countries

(1) Integrity with an article

In the United States, a screen design which is separated from an article is not subject to protection; however, a screen design can be subject to protection if it is in the state of being displayed on an article. The definition of "design" in the current Industrial Design Protection Act of South Korea is very similar to that in the Japanese Design Act,¹ and screen designs are protected as parts of articles in the state of being displayed on articles such as display devices. The Industrial Design Protection Act is now under revision. After the revision, the subject-matter of protection is scheduled to be expanded to include articles stipulated in the Locarno Agreement, and it is expected to become possible for the screen designs and icons themselves to enjoy protection. In Europe, screen designs themselves are subject to protection as products, and there is no requirement of integrity with an article.

As a result of the interview survey, no unified view was obtained with regard to whether it is possible to exercise rights, including injunction, against the act of assigning, etc. a program in any country/region as opinions on that point differed depending on users.

(2) Function/operation requirements

The function/operation requirements that are imposed on screen designs in Japan are not imposed in the United States, Europe, and South Korea. Therefore, screen designs, wallpapers, etc. which are displayed on computers have been registered in those countries and region.

(3) Scope of effect

In the United States, names of articles, such as "icon on a computer display screen," are permitted in practice, and such rights are expected to extend to various articles which can display screen designs and intangible items such as software, etc., and may have a broad scope in the same manner as in the case where screen designs themselves are made subject to protection. Screen designs themselves are/will be subject to protection in Europe/South Korea after the legal revision; therefore, relevant rights are expected to extend to all the articles which display screen designs.

(4) Number of designs and articles which can be included in one application

In the United States, it is possible to enjoy protection for multiple embodiments that are based on a single design concept, and it is also permitted to describe the names of multiple articles in the "Title" and "Claim" columns. Therefore, there are registrations in which a "drawing indicating only a screen design" and a "drawing indicating the state where the screen design is displayed on a device" are included in one application and those in which a "drawing indicating only an icon," a "drawing indicating the state where the icon is displayed on a device," and a "drawing indicating the state where the picture of the icon is printed on the surface of the device body" are included in one application.

In Europe, it is possible to include multiple designs that fall under the same class of the International Classification for Industrial Designs

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in one application. In South Korea, it is possible to include up to 20 desings that fall under the same class in one design application for screen designs. Furthermore, under the revised Act, it will become possible to include up to 100 designs of articles that fall under the same class of the International Classification for Industrial Designs in one application.

(5) Results of the overseas interview survey

In all countries and region subject to the survey, search regarding other persons' rights is not considered so difficult that it would affectdevelopment. In addition, opinion was divided concerning whether production and assignment of a computer program constitute infringement of a relevant design right in these countries.

2 User needs for protection of screen designs

About 33% of the companies answered that "screen designs are highly important" while about 34% of the companies answered that "screen designs are important to the same degree as elements (function, other brand. price. advertising, etc.)." Adding those that answered that "screen designs are likely to become important in the future," screen designs are likely to become important for around 80% of all the respondents in the future. Only about 3% of the companies answered that "screen designs are of little importance and are also unlikely to become important in the future."

With regard to screen designs that should be protected under the Design Act, according to the results of the questionnaire survey, most respondents chose "screens of specialized machines," followed by "screens of general-purpose machines" and "icons" in the order given. The fewest respondents chose "game screens" and "decorative screens."

With regard to the forms of display that should be protected through expansion of protection under the Design Act in addition to images that are recorded in articles in advance, a little under 70% of the hardware companies answered that "screen designs that are added/changed after the purchase of the products" should be protected (or their protection is permissible) while a little under 40% of the companies specializing in software answered in that manner. In addition, around 50% of the hardware companies answered that "screen designs displayed by programs or data that are outside the products" should be protected (or their protection is permissible) while only over 30% of companies specialized in software gave this answer.

As for the design application system for screen designs, few respondents gave an answer supporting a system under which rights extend to all articles. In addition, it appeared that many respondents desire the reduction of procedural and cost burdens while maintaining the idea of the scope of rights under the current system.

Through the overall questionnaire and interview surveys, many respondents expressed opinions showing concerns about increases in the burden of searches regarding other persons' rights and omissions of searches which are caused by additions to the subjects of protection under the Design Act and expansion of the scope of protection under said Act.

Ⅲ Current Situation of Screen Designs and Their Development

1 Examples of screen designs in products in the market/services

As examples of screen designs in products in the market/services, there are cases in which a common screen design is used in multiple devices. It is expected that cases in which a common screen design is used in different kinds of products will increase with an increase in the number of products using a general-purpose operating system.

Moreover, products for which it is possible to make changes/additions to the menu screen and to add functions after their purchase, including smartphones and tablet-type devices, have become widely used in addition to computers, and they are expected to increase in the future. For devices in which services are provided through networks, it is becoming difficult to determine whether a displayed screen design is an image that has been recorded in the product in advance or an image that has been obtained through networks.

Furthermore, it is becoming difficult to distinguish between multifunction communications devices and specialized machines with communications function due to progress in the introduction of multifunction into products and the introduction of communications function into specialized machines. It is expected that there will be increasing cases in which it is difficult to distinguish between the screen designs, between the frame designs, or even between the screen design and the frame design of products that are different in type.

For the screen designs of business-oriented software, user-friendliness and understandability are emphasized, and many of such screen designs have less decorative elements and are simpler compared to the screen designs of products or services for consumers.

2 Current situation of screen design development

(1) Basic knowledge on screen designs

Screen designs have developed into easier-to-understand and more user-friendly versions as a variety of expressions have become possible owing to the rapid improvement of drawing performance. There are various kinds of screen designs, including those of the small component level such as buttons and bars as well as those that change in chronological order.

(2) Development process of a screen design

The development of a screen design can be divided into the following six processes: "research "concept planning," and benchmark. "idea of generation," production a "prototype," "assistance for commercialization" including manufacturing of parts, and "evaluation." The development of a screen design is carried out at an early stage of product planning in some cases. In addition, follow-up associated with changes to software is often conducted until just before the product is placed on the market. Therefore, the development of a screen design is carried out for a very long period within the entire period of product development. Searches on other persons' design rights are conducted during the process of idea generation and at the final stage of development.

(3) Current situation of development of screen designs of enterprise systems

The following has been pointed out: In screen designing in enterprise systems development, emphasis is placed on allocating items necessary to realize a required function in a screen with due consideration to operationality and visibility; therefore, there is not much difference in required menu items among systems intended for the same purpose; in addition, layouts are basically consolidated into several patters; consequently, there is a limit to making changes to screen designs, and it is thus difficult to come out with uniqueness of designs.²

(4) Relationships between screen design development and the design system

There are various kinds of screen designs, and they are closely related to the functions, purposes, etc. of products. In addition, they are associated with users' experience and are not a mere appearance or form. Furthermore, the degree of a screen design's appeal to users as added value and the degree of freedom of screen design development significantly differ depending on the products. It is necessary to examine protection of screen designs under the design system in consideration of the balance with the degree of freedom of creation after careful consideration of the desirable form of protecting such comprehensive originality and added value of screen designs.

IV Regarding the Propriety of Relaxing the Requirement of Integrity with an Article

The Japanese Design Act defines "design" as the "shape, patterns or colors, or any combination thereof, of an article (including a part of an article), which creates an aesthetic impression through the eye" (Article 2(1) of the Design Act), and it provides that a design and an article is integral and inseparable. As screen designs are protected as parts of articles, they are also handled as integral with and inseparable from articles.

Protection of screen designs under the Design Act is subject to the following restrictions due to this "requirement of integrity with an article," and the subject-matter of protection is limited compared to that in the United States, Europe, etc.

[Restriction 1]

Only screen designs that have been recorded in an article in advance are subject to protection, and screen designs of software, etc. that are created and sold independently of articles and screen designs, etc. that are transmitted through networks are not subject to protection.

[Restriction 2]

Screen designs themselves are not subject to protection, and they are protected as parts of articles. Therefore, the same screen design is handled as a different design if it is applied to a different article, and it is thus necessary to file applications and obtain rights for individual articles.

[Reasons for the response policy (secretariat's plan)]

(i) Regarding the requirement of integrity with an article

If the requirement of integrity with an article is abolished at this time, there will be concerns regarding a significant increase in the burdens of examination and monitoring. Therefore, it is inappropriate to adopt the idea of relaxing or abolishing the requirement of integrity with an article at this time.

(ii) Regarding expanding the scope of indirect infringement

Provisions on indirect infringement should be reinforced in order to eliminate acts of circumventing the law, including the act of escaping from being accused of infringement of a right by assigning a product and a program separately.

(iii) Regarding introduction of the single application for multiple articles system

The single application for multiple articles system should be introduced in order to reduce procedural and cost burdens for applications for design registration for screen designs that are used in common in multiple articles.

(1) Regarding the response policy (secretariat's plan)

The committee presented the following secretariat's plan as a measure to resolve the aforementioned restrictions that are imposed due to this "requirement of integrity with an article," and held discussions.

[Secretariat's plan]

The scope of indirect infringement is to be expanded in relation to restriction 1 and the single application for multiple articles system is to be introduced in relation to restriction 2 while maintaining the requirement of integrity with an article

(2) Consideration at the committee

Many committee members said that it was too early to abolish the requirement of integrity with an article at this time and that the requirement should be maintained (however, some said that the requirement should be maintained on the condition that arrangements are made to enable screens of software programs that are sold independently of articles to enjoy protection through provisions on indirect infringement). There are other opinions, such as the opinion that articles should be handled as similar articles if functions they already have are similar, the opinion that screens pertaining to the version upgrade of a function that an article already has should be made subject to protection, and the opinion that screens of cloud computing services should be made subject to protection.

Many committee members assented to the necessity of restraining acts of circumventing the law, including the act of escaping from being accused of infringement of a right by assigning a product and a program separately. However, opinion was divided with regard to the necessity of expanding the scope of indirect infringement. The following opinions were raised in discussing the expansion of the scope of indirect infringement: (1) screens of software programs which are sold independently of articles should be made subject to protection; (2) careful discussion should be held in order to prevent programs that are not primarily for the purpose of use in articles that have been registered as design rights from becoming subject to protection; (3) careful discussion should be held regarding whether the abolition of the requirement of integrity with an article at the time of distribution is essential for expanding the scope of indirect infringement; (4) sufficient attention should be paid so that the system will be one that does not cause disadvantages for manufacturers of devices; (5) in the future, it will be necessary to consider some measures to prevent the obstruction of the industrial activities of software manufacturers; and (6) careful discussion in sufficient consideration of the opinions of manufacturers, users, etc. is necessary in the future with regard to web page images.

Many committee members assented to the introduction of the single application for multiple articles system. However, there was the opinion that the introduction should be based on the premise that examination is conducted for each article and that careful discussion should be held regarding the content of restraints imposed on the articles that can be designated, the method of filing (method of describing drawings), the method of examining each article, the method of responding to a notice of reasons for refusal, etc.; the opinion that some sort of restrictions (for example, limiting the number of designated articles to 100 and adding expenses with each article added) are necessary; and the opinion that careful discussion should be held regarding harmony with the "single application for multiple designs" system under the Geneva Act of the Hague Agreement Concerning the International Registration of Industrial Designs.

There was the opinion that discussion should be continuously held on permitting the use of a generic concept as a name of an article and identifying an article by its function. In addition, there were the opinions that, in said discussion, it is necessary to make clear definitions and the opinion that it is necessary to avoid the where occurrence of the situation the requirement of integrity with an article substantively ceases to function.

V Regarding the Propriety of Relaxing Function/Operation Requirements

Screen designs that are protected under the current design system are roughly divided into "display images" and "operation images" depending on their content, and images other than these are not subject to protection under the Design Act.

- <u>Display image</u> (Article 2(1) of the Design Act)

Image which provides a display that is necessary to carry out the functions of the article

- <u>Operation image</u> (Article 2(2) of the Design Act)

Image which is provided for use in the operation that is carried out in order to enable the article to perform its functions

Due to these function/operation requirements, screen designs of computers, screen designs only for decorative purposes, etc. are not subject to protection. The subject-matter of protection in Japan is limited compared to that in the United States, Europe, etc.

(1) Regarding the response policy (secretariat's plan)

As a measure to cope with the limitation of the subject of protection by the "function/operation requirements," the committee presented the following secretariat's plan and held discussions.

[Secretariat's plan]
The function/operation requirements are to
be abolished.

[Reasons for the response policy (secretariat's plan)]

The function/operation requirements should be abolished for the following reasons: (1) rational reasons for distinguishing between specialized machines and general-purpose machines are ceasing to exist; (2) such requirements are not imposed in the United States, Europe, South Korea, etc.; (3) it is becoming difficult to identify the function and use of a screen; (4) it is difficult to make a determination as the border between "decorative purposes" and "operational purposes" is ambiguous; (5) predictability of the scope of a design right may decline due to an increase in the number of elements for determination if "similarity of functions of screens" is determined in the determination of similarity of designs; (6) patterns, etc. printed on articles are also subject to protection under the current system; (7) overlapping of protection with the Copyright Act does not become a big problem as long as integrity with an article is maintained.

However, in expanding the subject of protection through abolition of the function/operation requirements, it is necessary to consider requirements for registration of screen designs in order to prevent screen designs that merely give a familiar impression from being registered and to examine the system and its implementation to reduce the burdens of examination and monitoring.

(2) Considerations in the committee

Opinion was divided about expanding the subject of protection through abolition/relaxation of the function/operation requirements. In particular, regarding screen designs of computers (general-purpose), some committee members said that their protection was necessary while others said that they should not be protected. The committee could not reach a common conclusion. Incidentally, both groups agreed that it was necessary to enrich the collection of determination examples and to disclose the determination method. In addition, some committee members requested the maintenance of the substantive examination

principle and the disclosure of the database on publicly-known information.

VI Regarding Other Requirements

- Regarding the effect of a design right (scope of rights, provisions on the acts of working, and provisions on indirect infringement)
- (1) Regarding the response policy (secretariat's plan)

With regard to the effect of a design right (scope of rights, provisions on the acts of working, and provisions on indirect infringement), the committee presented the following secretariat's plan and held discussions.

[Secretariat's plan]

The scope of rights under the current system is to be maintained. As stated in Chapter IV "Regarding the Propriety of Relaxing the Requirement of Integrity with an Article," it is too early to abolish the requirement of integrity with an article; therefore, the scope of rights under the current system ("the article is identical or similar" and "the form is identical or similar") should be maintained. In addition, provisions on indirect infringement will be reinforced after abolishing the requirement of integrity with an article at the time of distribution.

(2) Considerations in the committee

The committee members reached an agreement toward maintaining the scope of rights under the current system ("the article is identical or similar" and "the form is identical or similar").

Regarding provisions on indirect infringement, the committee members indicated legislative problems in the case where a screen design itself is regarded as an article. In addition, there was the opinion that it is necessary to consider provisions that will not be affected by the provisions on "programs, etc." in the Patent Act.

The expansion of the scope of indirect infringement is as described in IV (2) above.

2 Regarding the description requirements of drawings and data format in filing a design application

(1) Regarding the response policy (secretariat's plan)

With regard to the description requirements of drawings and data format in filing a design application, the committee presented the following secretariat's plan and held discussions.

[Secretariat's plan]

(i) Regarding the description requirements of drawings

The requirements of drawings are to be relaxed. For screen designs, ordinarily, the necessity of submitting drawings on a direction from which the screen is not visible (drawings indicating only the frame body) is considered to be low. Therefore, applicants should be allowed to omit such drawings. However, it is necessary to pay attention to prevent the scope of the right from becoming unclear.

(ii) Regarding data format

Applications filed using three-dimensional CAD data or video data are not accepted. Applications filed using three-dimensional CAD data or video data are not to be accepted at this time as user needs are not significant.

(2) Considerations in the committee

With regard to the requirements of drawings for screen designs, the committee members reached an agreement to the effect that consideration should be carried forward toward relaxing the requirements while paying sufficient attention to prevent the scope of rights from becoming unclear.

The committee members reached an agreement to the effect that applications filed using three-dimensional CAD data or video data are not to be accepted at this time and that if the need for such applications increases, discussion should be held on the propriety of accepting such applications while paying sufficient attention to prevent the scope of rights from becoming unclear.

3 Other items to be considered

In addition, there was the opinion pointing out the necessity of considering protection of screen designs in consideration of other laws and regulations, the opinion that it is necessary to pay attention to the low response rate of the questionnaire survey, the opinion about the level of determination of uneasiness of creation, the opinion pointing out the necessity of international harmonization from the perspective of importance of getting acquainted with practice concerning obtainment of design rights for screen designs in promoting international business development, and the opinion that an aggressive stance of protecting companies' own products is a greater necessity than anxiety about the exercise of rights by other persons.

M Conclusion (Proposals Concerning Design System in the Future)

As a result of this study, it is considered appropriate to take the following actions as a design system in the future, in order to promote appropriate protection of screen designs under the Design Act. However, in promoting discussion on the system in the future, it is desirable to take actions, such as continuously collecting information about the need for protection in industries that do not use the design system at present but are likely to use the design system if the subject of protection is expanded.

1 Regarding the requirement of integrity with an article

(1) Regarding relaxation of the requirement of integrity with an article

Where the requirement of integrity with an article is abolished and screen designs that are separated from articles are protected under the Design Act, there will be concern that the burden examination and monitoring of becomes extremely heavy under the current system and in current environment. Therefore, the the requirement of integrity with an article is to be maintained in principle at this time, and the propriety of protecting designs that are separated from articles should be examined not as a problem of screen designs but as a problem of the Design Act as a whole in the future, in addition to considering the reduction of burden of monitoring other persons' rights and the clarification of the scope of effect of a design right.

(2) Regarding expansion of the scope of indirect infringement

Careful discussion should be continuously held on the expansion of the scope of indirect infringement in consideration of the following points, etc., taking into account that it is necessary to restrain acts of circumventing the law, including the act of escaping from being accused of infringement of a right by assigning a product and a program separately.

- Propriety of abolishing or relaxing the "requirement of integrity with an article at the time of distribution"
- Propriety of making screens of software programs that are sold independently of articles subject to protection under the Design Act
- Handling of programs whose primary purpose is not use in articles that have been registered as design rights
- Influence on the manufacturers of devices
- Influence on the industrial activities of software manufacturers
- Handling of screen designs of websites
- Handling of screen designs of services that are provided through cloud computing

(3) Regarding the single application for multiple articles system

Careful discussion should be promoted toward introducing the single application for multiple articles system in consideration of the following points, etc., taking into account that there is the need for reducing the burden involved in attempting to obtain a right for a screen design applied to multiple articles.

- Propriety of requiring examination to be conducted for each article in the same manner as the current system
- Content of constraints imposed on articles that can be designated, filing method (method of describing drawings), examination method for individual articles, and method of responding to a notice of reasons for refusal
- Propriety of imposing some sort of restrictions (for example, limiting the number of designated articles to 100 and adding expenses with each article added)
- Harmony with the single application for multiple designs system under the Geneva Act of the Hague Agreement Concerning the International Registration of Industrial Designs

(4) Other

Careful discussion should be continuously held with regard to the following items.

- Propriety of permitting the use of a generic concept as the name of an article
- Propriety of introducing a system of identifying an article by its use or function

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2 Regarding the function/operation requirements

Careful discussion should be continuously held with regard to the function/operation requirements in consideration of the following points, etc.

- Propriety of making the screen designs of general-purpose machines subject to protection under the Design Act
- Propriety of making screen designs that are only for decorative purposes subject to protection under the Design Act
- Necessity of international harmonization in terms of the subject of protection under the Design Act
- System and its implementation to reduce the burden of monitoring other persons' rights
- System and its implementation to make clear the scope of design rights for screen designs
- Examination standards for screen designs

3 Other

(1) Requirements of drawings

With regard to the requirements of drawings of a screen design, discussion directed toward relaxing them should be carried forward while paying sufficient attention to prevent the scope of rights from becoming unclear.

(2) Regarding data format

Applications filed using three-dimensional CAD data or video data are not to be permitted at this time. If the need for such applications increases, discussion should be held regarding the propriety of permitting such applications while paying sufficient attention to prevent the scope of rights from becoming unclear.

(Researcher: Hiroki SAITO)

¹ The Industrial Design Protection Act provides that "'design' means the shape, pattern, color or a combination of these in an article that produces an aesthetic impression in the sense of sight; the same applies to a part of an article and the style of calligraphy unless Article 12 of this Act applies)" (Article 2(1) of the Industrial Design Protection Act).

² "Reference IV – 2. Examples of screen designs in the information service industry," page 2 (Japan Information Technology Services Industry Association).