

# ***Image Designs indicated on the Display Screen Their Legal Protection in the European Union***

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Note:

[Underlined blue quotations](#) are active links to sources

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# **1 Introduction**

The importance of the protection of Intellectual Property Rights for innovation, employment, competition and thus economic growth cannot be overrated. Therefore it is particularly important to put more emphasis on the protection of these rights. The key to success is to create an environment which nurtures dynamics and creativity built upon the foundations of a secure legal environment. It must become possible to obtain wide protection of Intellectual Property Rights through a simple application system with legal certainty and at a reasonable price.

In this context the Design Law has become an appealing subject. In a young legal field as Intellectual Property, Design Law is particularly new, its development was conducted in a state of ongoing controversy. There has been a general tendency to try to find fast solutions for the conundrum of design protection. The legal regimes that consider Design Law as an Intellectual Property autonomous ramification are few in number and influence. Far more important is the number of countries where designs are granted an ambiguous, hybrid status: a regime made of norms taken from other Intellectual Property contexts or dispersed in other Intellectual Property laws.

There are not two countries with exactly the same regulations regarding design protection. Unlike other fields the protection granted to design seems to be specific to very narrow national realities. There are patent-like regimes, copyright-like regimes, and trademark-like regimes. Pure design regimes are unusual. They generally coexist with some kind of complementary traditional protection, or even with sui generis protection for specific works. The regimes of protection coexist, overlap, or even are combined in a panorama that reflects the complexity of this field.

## **Is there a real chance for harmonization or unification of Design Law?**

As mentioned before, not two countries share the same set of design law characteristics or even similar configurations. Europe is a glaring illustration of such deep-seated intricacy.

The creation of an European supra-national Design Law could be seen as a fundamental step in the world wide process of understanding and structuring a coherent design law. There is no other region in the world where such an undertaking could be attempted. And so the time for a proper, uniform body of law seems to have come. Following the general tendency in the European legal process the EU uses two instruments to harmonize the legal framework in the member states of the Union: **Regulations** are immediately in force in the member states and therefore an instrument for unification of the legal situation; **Directives** are more often used to harmonize civil law. They are only ruling defaults and objectives, which have to be transformed to national law by the member states.

# **2 Objective of the Study**

At the European level the patenting of designs or software and computer implemented inventions is very much on the agenda. The objective of this study is to

give an idea about the status quo of the harmonization in the European Union and to show tendencies how screen designs could be protected in the near future.

## **Study Approach**

This study aims at defining legal requirements for both print and screen design protection within the European Union (EU), with a special focus on Graphic User Interface (GUI) design.

This study further considers differences in scope of protection under different laws, esp. European patent and copyright law, and tries to discern trends and ambiguities in European and national legislation and jurisprudence.

## **3 European Patent Law**

### **3.1 Official Documents and Definitions**

- [Proposal for a Council Regulation on the Community patent - COM/2000/0412 final](#)
- Proposal for a software patent directive<sup>1</sup>
- [Consultation Paper by the Services of the Directorate General for the Internal Market about “The Patentability of Computer-Implemented Inventions”](#)
- [Amended proposal for a European Parliament and Council Directive approximating the legal arrangements for the protection of inventions by utility model](#)
- Consultations on the impact of the Community utility model in order to update the Green Paper on the Protection of Utility Models in the Single Market (COM(95)370 final) (July 2001)
- [European Patent Convention \(EPC\)](#)
- [Directive 98/71/EC of the European Parliament and of the Council of 13 October 1998 on the legal protection of designs](#)
- [Amended Proposal for a Council Regulation on Community Design \(21 June 1999\)](#)
- [New amended Proposal for a Community Design Regulation \(20 October 2000\)](#)

### **Screen Designs, GUI and “Computer Program”**

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<sup>1</sup> For now there is no proposal available.

For the correct classification within the European Patent System it is very important to decide to what extent screen designs or GUIs are part of or the result of a “Computer Program” or not. This determination has enormous consequences on the scope and the kind of protection: while protection by function patent may be granted because of its association with a computer program, the same argument might exclude protection in case of the future Regulation on Community Design (compare with 3.3).

### **What is a “Computer Program”, what is a “GUI”?**

Neither the European Patent Convention, nor the Computer Programs Directive include a definition of the term “Computer Program”.

The WIPO definition, where the term “Computer Program” is defined as “a set of instructions, when incorporated in a machine readable medium, capable of causing a machine having information processing capabilities to indicate, perform or achieve a particular function, task or result”, is an indication, but this definition is not universally accepted.

According to a recent study<sup>2</sup> mandated by the European Commission a computer program should be considered as a set of statements or instructions which is capable of causing a machine having information processing capabilities (a computer) to perform a set of functions to achieve a result.

**User Interfaces** may be defined as a mixture of functional and formal content, providing metaphors, mental models, navigation, appearance and interaction for the purposes of specific users and their tasks<sup>3</sup>. **Image design** relates to the formal and functional attributes of the user interface on all levels.

## **3.2 Protection of Function**

### **Is there a chance to protect screen designs or GUIs because of their functionality?**

“Function”<sup>4</sup> patents protect the novel, non-obvious, and useful functional characteristics of a device, structure, or process conceived as a purely intellectual or engineering achievement, i.e., concerning ideas translated into “merely” physical form, not designed form.<sup>5</sup> In the future various forms of European Patents for the protection of functions will exist: European Patent Law (already existing), Utility Patent Law (in preparation) and the Community Patent Law (in preparation).

First, we have to bear in mind that a “function” patent is not intended for the protection of designs. However, from our point of view, there is a chance for a screen design or GUI to gain protection by function patent in Europe, if the underlying

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<sup>2</sup> Hart, Holmes, Reid, The Economic Impact of Patentability of Computer Programs, cited 29.11.2001, [http://europa.eu.int/comm/internal\\_market/en/indprop/study.pdf](http://europa.eu.int/comm/internal_market/en/indprop/study.pdf), Page 11

<sup>3</sup> Marcus, Intellectual Property Issues in User Interface Design, 1996, Page 1.

<sup>4</sup> The term “function” should show the difference between design patents and “function” patents (e.g. utility patents).

<sup>5</sup> Marcus, Intellectual Property Issues in User Interface Design, 1996, Page 3.

computer program has a technical character. Technical character can be interpreted as requiring, first, that an invention must belong to a field of technology and that, second, the invention must also make a technical contribution to the technological state of the art.

### **What is the major difference between European and U.S. Patent Law?**

The requirement in Europe that an invention has to make a technical contribution can be seen as the major difference between Europe and the U.S. In the U.S. the invention must simply be within the technological arts and no technical contribution is needed. The mere fact that the invention uses a computer or software makes it part of the technological arts if it also provides a “useful, concrete and tangible result”. That the U.S. does not require the invention to provide a technical contribution means, in particular, that the restrictions on patenting of business methods (apart from the requirements of novelty and unobviousness / inventive step) are negligible<sup>6</sup>.

### **What is the aim of the Community Patent?**

In order to provide the industry of the European Community with a third tool of industrial property protection, the Commission presented a proposal for a unitary Community patent system.

Once agreed upon, the Community Patent will have the same unitary features as the Regulation on the Community Trade Mark and the Regulation on the Community Design. The Community Patent must be affordable and should guarantee legal certainty (compare with 3.3). Obtained by a single application it would be valid throughout the EU and, in theory, would strengthen and unify measures to protect intellectual property rights for European industry, improve the management of patent rights and encourage competition and innovation. The Community Patent **would coexist with patents issued by national offices and the European Patent Office.**

### **Is there a chance for a fast implementation of the Regulation on the Community Patent?**

The idea is not new. However, having been originally conceived in 1960 as the Community Patent Convention, it has never been ratified by the required number of member states. Reasons for this centered on industry concerns over the potentially high costs involved in patent translations - the Community Patent Convention required that all patents would have to be translated into every EU language rather than just for designated countries as required by the European Patent Office. This was compounded also by differing judicial systems within the EU and the lack of a single, centralised, specialist patent court able to deal with European patent disputes. Unless the EC addresses these two key issues, a Community Patent is unlikely to be used even if introduced.

### **What are the objectives of the planned Software Patent Directive?**

The planned directive should have two main objectives: First, to establish on the level of European patent legislation the equal treatment of information technology with

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<sup>6</sup> Consultation Paper by the Services of the Directorate General for the Internal Market, cited 29.11.2001, [http://europa.eu.int/comm/internal\\_market/en/indprop/soften.pdf](http://europa.eu.int/comm/internal_market/en/indprop/soften.pdf) , Page 14.

other branches of technology, as provided for in the Trade Related Intellectual Property Agreement (TRIP, see Annex) and to a great extent in the jurisprudence of the European Patent Office (EPO, see Annex) Boards of Appeal and some national instances; second, to ensure that the level of protection by patents in Europe remains consistent with that in the US and Japan.

### **What is the background of the planned Software Patent Directive?**

On 19 October 2000 the European Commission launched consultations via the Internet on the patentability of computer-implemented inventions. Interested parties, the public at large and member states were invited to comment on the basis of this consultation paper. This paper was also notified formally to member states. Considerable debate has taken place in Europe recently about the patentability of computer software. So the ideas embodied in the Consultation Paper are very interesting in relation with the forthcoming proposal for a software patent directive. Now that the main positions and ideas have been articulated, the time seems to have arrived for appropriate lobbying of the parties concerned.

### **What about the proportion of technical and non-technical features in connection with computer-implemented inventions?**

The answer to this question could be a key element in the future to protect the functional elements of a GUI. If we analyze the aesthetical and functional aspects of designing user interfaces, it is very important that the functional aspects could be classified as technical features, while the also existing aesthetical aspects may be seen as non-technical features.

In determining the technical contribution, the invention must be assessed as a whole. It may consist of a mix of technical and non-technical features but in determining the technical contribution only the technical features are taken into account. Where the contribution lies merely in non-technical features, the invention will not be considered as involving an inventive step.<sup>7</sup>

### **Is there a good chance for (graphical) user interfaces to gain patent protection, even if they were designed for the presentation of information or due to aesthetic reasons?**

A computer-implemented invention that makes a technical contribution will, in principle, be patentable even if its application concerns one of the other non-technical fields mentioned in the provisions of member states patent laws corresponding to Art. 52(2) of the EPC, e.g. methods for doing business, mental acts, **presentations of information, aesthetic creations**, or methods for playing games. The presence of such non-technical features will not preclude a finding of a technical contribution. General examples of a technical contribution which may be of particular importance for a computer-implemented invention with a specific application in a non-technical field, such as aesthetic creations, are enhanced processing speed, more economical

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<sup>7</sup> Consultation Paper by the Services of the Directorate General for the Internal Market, cited 29.11.2001, [http://europa.eu.int/comm/internal\\_market/en/indprop/soften.pdf](http://europa.eu.int/comm/internal_market/en/indprop/soften.pdf) , Page 7.

use of memory, **an improved user interface**, or an improvement of the way in which an internal computer command signal is generated.<sup>8</sup>

So GUIs have a chance, if only a minimal one, of obtaining protection, if it is possible to demonstrate a technical contribution.

However, where the only contribution is non-technical, that is where it merely lies in one of the other fields excluded under the provisions of member states patent laws corresponding to Art. 52(2) of the EPC, e.g. in the presentation of information, the computer-implemented invention will not be considered as involving an inventive step and thus will not be patentable.

### **If the GUI obtained protection due to a technical contribution, would the aesthetic (non-functional) part of the interface be protected too?**

Where a patent for a computer-implemented invention has been granted because a technical contribution has been found and where the invention comprises a non-technical feature, e.g. an aesthetical one (i.e. the aesthetic part of a user interface), this special graphic feature should not be legally monopolised by the patent. The presence of non-technical features in a patented computer-implemented invention should not prevent the grant of a patent for a different computer-implemented invention comprising the same non-technical features because these features will not be taken into account in determining the technical contribution which the latter invention makes.

### **What is the Utility Patent?**

On 19 July 1995, the Commission published a Green Paper on the Protection of Utility Models in the Single Market. The Green Paper introduces the "utility right", a registered right which protects technical inventions. Some form of utility model protection already exists in most EU countries, with the exception of the UK, Sweden and Luxembourg. The Green Paper aims to harmonise the position throughout the EU.

The new EU "utility right" will offer the advantages of a straightforward, rapid and inexpensive registration procedure, protection for technical inventions at a lower level than patents and temporary protection prior to the grant of a patent. Due to the fact that there are no concrete proposals for the protection of Utility Models today, it does not make sense to illustrate the consultation process in an extended manner. But it seems very likely that the problems faced will be comparable to the ones concerning the classification of computer programs.

### **What is the significance of the European Patent Convention (EPC)?**

This convention has given rise to what is called the [European Patent Office](#). The European Patent Office (EPO) offers a way to file a single patent application which can lead to patent coverage in all the European countries that belong to the

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<sup>8</sup> Consultation Paper by the Services of the Directorate General for the Internal Market, cited 29.11.2001, [http://europa.eu.int/comm/internal\\_market/en/indprop/soften.pdf](http://europa.eu.int/comm/internal_market/en/indprop/soften.pdf) , Page 8.



European Patent Convention (EPC)<sup>9</sup>. While the European Patent Office has its historical origins in the European Union, it is interesting to note that the European Patent Office formalities can lead to patent coverage in countries that do not belong to the European Union. For example, Switzerland presently does not belong to the European Union, and yet it is possible to secure Swiss patent protection through the European Patent Convention and the European Patent Office.

On the grant of a European patent, the patentee acquires the same rights in each of the countries he has designated in his application as he would have done had he obtained individual patents in each of those countries.

The EPC not only provides for the possibility of filings via the EPO, but also has led to a high level of harmonisation of patent laws between the contracting states. So, for example, the EPC provisions on patentability of computer programs (discussed below) are reflected in the national patent laws of the contracting states.

### **What can be protected under the European Patent Convention (EPC)?**

The basic definition of what is patentable is that an invention must

- be susceptible of industrial application and
- be new and
- involve an inventive step.

The European Patent Convention also adds a gloss to the basic definition by specifically stating that certain things “as such”<sup>10</sup> should not be regarded as being inventions at all. These include: discoveries, scientific theories and mathematical methods, aesthetic creations, schemes, rules and methods or performing mental acts, playing games or doing business, programs for computers and **presentations of information**.

### **If screen designs or GUIs would be categorized as part of or result of a computer program, would they be protected?**

Computer programs “as such” are excluded from patentability by the provisions of Art. 52(2) and (3) of the European Patent Convention (EPC) which are in essence reproduced in member states patent laws. Yet, thousands of patents for technical inventions using a computer program have been granted by national patent offices and by the European Patent Office (EPO). Furthermore, while the national and EPO provisions setting out the conditions for granting such patents are similar, their application in the case law and the administrative practices of the patent offices varies considerably. This situation has adversely affected investment and innovation in the software sector and has also had a negative impact on the functioning of the Internal Market. Harmonisation of national patent laws on the issue is necessary.

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<sup>9</sup> The countries that belong to the European Patent Office include Austria, Belgium, Switzerland, Germany, Denmark, Spain, France, United Kingdom, Greece, Ireland, Italy, Liechtenstein, Luxembourg, Monaco, Netherlands, Portugal, and Sweden.

<sup>10</sup> This is a very important addition, because it means that – for example - aesthetic creations “as such” (e.g. a normal image) are excluded from protection in advance, but not if a aesthetic creation has also functional aspects and involve an inventive step (e.g. some GUIs).

This should provide greater transparency for European companies, especially for Small and Medium sized Enterprises (SMEs)<sup>11</sup>.

In fact, it follows from the European legal tradition and in particular from the legal history of the EPC that, under Art. 52(1) of the EPC and the corresponding provisions of the patent laws of the member states, patents can only be granted for inventions which have a technical character. Technical character can be interpreted as requiring, first, that an invention must belong to a field of technology and that, second, the invention must also make a **technical contribution** to the technological state of the art. Conversely, the exclusion of computer programs "as such" from patentability has been interpreted by the Boards of Appeal of the EPO as relating to those computer-implemented inventions which have no technical character. Similar considerations have been applied by the EPO Boards of Appeal to the other items of Art. 52(2) of the EPC which, "as such", are excluded from patentability, for instance, to "methods for doing business", "**presentations of information**", or "**aesthetic creations**". This means that inventions relating to these items are also considered to be **patentable when they have a technical character**.

The point is: "Programs for Computers are considered as having **technical character**, if they **cause, when run on a computer, a technical effect** which may be known in the art but must go **beyond the "normal" physical interactions between program and computer**."<sup>12</sup>

Accordingly, computer programs which, when loaded into a computer system, cause that system to operate, to either perform a new function, or to achieve an old function in a new manner, may well be capable of protection by the patent system by protecting the apparatus and/or the process when performing the new or improved function as well as by drafting claims to the program incorporating the new or improved function. Key to the patentability of such inventions is the presence of a technical contribution.

### 3.3 Protection of Designs

#### Is there a chance to protect screen designs or GUIs because of their design?

Design patents protect the novel, non-obvious, and "beautiful" characteristics of a device, i.e. the purely ornamental or aesthetic nature of the invention.<sup>13</sup> So it would be reasonable to argue that design patents could be applied not only to icons, but to all the essential components of user interfaces, i.e. to metaphors, mental models, navigation, appearance, and interaction. For each of these components, the semantic dimension of the user interface component is crucial.<sup>14</sup>

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<sup>11</sup> Consultation Paper by the Services of the Directorate General for the Internal Market, cited 29.11.2001,

[http://europa.eu.int/comm/internal\\_market/en/indprop/soften.pdf](http://europa.eu.int/comm/internal_market/en/indprop/soften.pdf) , Page 2.

<sup>12</sup> Hart, Holmes, Reid, The Economic Impact of Patentability of Computer Programs, cited 29.11.2001, [http://europa.eu.int/comm/internal\\_market/en/indprop/study.pdf](http://europa.eu.int/comm/internal_market/en/indprop/study.pdf) , Page 16.

<sup>13</sup> Elias, Patent, Copyright, and Trademark: Intellectual Property Law Dictionary, Page 129

<sup>14</sup> Marcus, Intellectual Property Issues in User Interface Design, 1996, Page 4.

## Is there such a thing as a European Design Law?

Attempts of harmonization of Design Law in the context of the European Union have been undertaken since 1958 without success until October 13, 1998. At that date the first half of a double initiative was finally approved, the European Directive on legal protection of designs. The second half, a Regulation on Community Design, which has as objective the achievement of an unitary design right, is still being considered.<sup>15</sup>

A path of forty years is a clear indication of the difficulties encountered. The direct history of the European Directive on the legal protection of Designs demonstrates what a non-predictable, unstable field Design law is, even when emphatic legislative intentions exist.

The way of choice was a Directive, a preferred path after the success of the Community Trade Mark system creation, but there was a major difficulty due to the extreme disparity between European national systems. There are absolute cumulative systems, partial cumulative systems and non-cumulative systems. The governments resisted any attempts of modification of such disparity via the Directive.

The Directive, trying to harmonize a traditionally non-harmonizable field as design law, could be seen as paradox itself. It seems that only the limited set of protection without controversy potential was harmonised, leaving the principal sources of heterogeneity<sup>16</sup> untouched. So the conclusion is, that there is no real harmonized European Design Law, because of the various transformations of the directive into the domestic laws of the member states. Although there were few specifications for the member states, the implementations of the Directive vary considerably.

## What are the requirements of protection according to the Directive on the legal protection of designs?

The subject matter protectable must fulfil two requirements:

- (a) novelty and
- (b) individual character.

Novelty, of course, does not imply a patent standard, but rather a far lower one that could be interpreted as a requirement of a certain amount of distinction from previous comparable creations, and will be appreciated in relation with the European design "prior art". The notion of novelty admitted in the Directive could be seen as similar to that existing in national laws.

The key requirement is **individual character**, specially determined in this Directive. It implies the necessity that the design be "non-common". The actual meaning of this characteristic will differ slightly in theory on account of various national backgrounds of the application. The individual character requirement was purposely conceived as

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<sup>15</sup> Barrera, Design Law: Protecting a Paradox, cited 30.11.2001, <http://www.jus.unitn.it/cardozo/Review/Business/Barrera1.html>

<sup>16</sup> Important matters such as major requirements of protection and the specific transformation to national law (e.g. as a Copyright or as Patent Law) was left to the Member States. See also Barrera, Design Law: Protecting a Paradox, cited 30.11.2001, <http://www.jus.unitn.it/cardozo/Review/Business/Barrera1.html>

an additional barrier that would enhance protection, improving the limits of protection which were always too low with regard to a given novelty standard. Its construction however would be confronted with the national standards.

### **What would be the benefits of the new Regulation on Community Design?**

The proposed Regulation is intended to encourage innovation and to help prevent counterfeiting and piracy by providing for protection of industrial designs throughout the EU's Single Market on the basis of two forms of protection at an European level: one being a short-term unregistered design right<sup>17</sup> and the other being a longer term registered design right. The conditions for protection are the same in both cases, **novelty and individual character**<sup>18</sup>, and comply with the corresponding provisions of the Directive. However, the unregistered Community design right does not allow the right holder to oppose designs which are the result of an independent creation by a second designer.

With regard to the registered Community design right the commission proposes a single, simple and inexpensive<sup>19</sup> registration procedure with the Office for Harmonisation in the Internal Market, situated in Alicante (Spain). And, in the same manner as for the Community Trade Mark right, once a design has been registered in this Office, the design right will qualify for protection in all fifteen member states. National design rights will not be abolished, but will co-exist<sup>20</sup> with the Regulation on Community Design<sup>21</sup>. The **Community registered design will be protected for one or more periods of five years, up to a total term of 25 years** from the date of filing.

### **What would be protected?**

In article 3 (a) of the proposed Regulation it says that "...design means the appearance of the whole or a part of a product resulting from the features of, and in particular the lines, contours, colours, shape, texture and/or materials of the product itself and/or its ornamentation".

In this context (see article 3 b) the term "product" means any industrial or handicraft item, including *inter alia* parts intended to be assembled into a complex product, packaging, get-up, graphic symbols and typographic typefaces, but **excluding computer programs**.

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<sup>17</sup> This form of protection will provide better design protection for products with a short real life span, such as textiles and toys. However, the Committee expressed the need to further clarify the concept and rights related to the unregistered Community design.

<sup>18</sup> **Consideration (20):** A Community design should not be upheld unless the design is new in the sense that it is not identical to any other design previously made available to the public, and unless it also possesses an individual character in comparison with other designs.

<sup>19</sup> **Consideration (25):** It is a fundamental objective that the procedure for obtaining a registered Community design should present the minimum cost and difficulty to applicants, so as to make it readily available to small and medium sized enterprises as well as to individual designers.

<sup>20</sup> **Consideration (34):** Pending harmonisation of copyright law, it is important to establish the principle of cumulation of protection under the Community design and under copyright law, whilst leaving member States free to establish the extent of copyright protection and the conditions under which such protection is conferred.

<sup>21</sup> **Consideration (33):** This Regulation should not preclude the application to designs protected by Community designs of the industrial property laws or other relevant laws of the member States, such as those relating to design protection acquired by registration or those relating to unregistered designs, trade marks, patents and utility models, unfair competition or civil liability.

## What are the advantages of the new proposal?

The amended proposal includes all the relevant provisions on substantive design law featured in Directive 98/71/EC, which harmonises national rules on design protection, and so is fully compatible with the Directive.

One of the main features of the proposed Community registered design is that it will not be based upon substantive examination as to compliance with requirements for protection prior to registration, thereby keeping the registration and other procedural burdens on applicants to a minimum.

With regard to **unregistered Community designs** the proposal envisages that designs would be protected for **three years** as from the date on which they are first made available to the public within the Community.

The proposed scope of protection for the unregistered design would be more limited than for the registered design and would not allow the right holder to oppose designs which are the result of an independent creation by a second designer. This proposal introduces some technical improvements to the system of protection of Community designs that might facilitate an early adoption of the Regulation.

## Does the envisaged Regulation on Community Design provide perfect protection for screen designs or GUIs?

The problem<sup>22</sup> in this context is the requirement for protection, in particular that in Art 3(b) computer programs are excluded as products. As a matter of fact, screen designs would not be registerable as a Community Design if classified as part of a computer program in the sense of Art 3.

# 4 European Trademark Protection

## 4.1 Official Documents and Suitability for Design Protection

- [First Council Directive 89/104/EEC of 21 December 1988 to approximate the laws of the Member States relating to trademarks](#)
- [Council Regulation 40/94/EC of 20 December 1993 on the Community Trade Mark usually referred to as “the basic Regulation” or the “Community Trade Mark Regulation \(CTMR\)”](#)
- [Commission Regulation 2868/95EC of 13 December 1995 implementing Council Regulation 40/94/EC on the Community Trade Mark](#)

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<sup>22</sup> Some European countries do not see a problem in this particular context and have already implemented or are just implementing their domestic Design Law in anticipation of the new Community Design. For example Denmark (for further information esp. referring to screen design and GUIs see: <http://www.slv.dk/english/designprotection.htm>) or the UK (for further information see: <http://www.patent.gov.uk/design/index.htm>).

- [Commission Regulation 2869/95/EC of 13 December 1995 on the fees payable to the Office for Harmonization in the Internal Market \(Trade Marks and Designs\)](#)
- [Commission Regulation 216/96/EC of 5 February 1996 laying down the rules of procedure of the Boards of Appeal of the Office for Harmonization in the Internal Market \(Trade Marks and Designs\)](#)

The Community Trade Mark system is based on the Regulation on the Community Trade Mark and the Directive for the Harmonisation of National Legislation.

The Community Trade Mark system has turned out to be a first important tool for the industry, because Trademark rights also provide particularly strong weapons in combatting counterfeits. The ambition is now, as a second step, to develop a system of Community-wide protection for industrial designs compatible with that provided for trademarks.

The 1988 trademarks harmonisation directive required all EU member states to harmonise many of the substantive provisions of their respective laws (but not their procedural rules) by 31 December 1992. Most countries in Europe have now implemented the directive by modifying their national Trade Mark Laws to bring them in line with the mandatory provisions of the directive.

Since the implementation of the CTMR it is possible to have a design registered as a Community Trade Mark. It enables trademark owners to secure unitary trademark protection throughout the 15 EU countries with only one application, registration fee and renewal fee per trademark and allows a trademark owner to maintain trademark rights throughout the EU by using its trademark in only one EU country. A new Community office has been established for this purpose in Alicante, Spain (but applications can be filed via national trademark offices in any member state). The law of the Community Trade Mark is substantially that of the harmonisation directive.

Although the law relating to registration of trademarks and trademark infringements has now been substantially harmonised under the harmonisation directive, national laws vary considerably on protection of unregistered marks and get-up.

The principal advantage of obtaining a Community Trade Mark registration is that trademark owners may obtain and maintain a single registration covering all fifteen member states of the EU and will no longer need to secure and renew registrations in the individual member states.

Parties who are nationals of, or have their domicile, seat or real and effective industrial or commercial establishment in the European Union, a member country of the Paris Convention or the World Trade Organisation Agreement may apply to register a Community Trade Mark<sup>23</sup>. Other parties may also apply provided that their home countries accord reciprocity to all members of the EU. A Community Trade Mark shall be registered for a **period of 10 years** from the date of filing and shall be **renewable for additional 10-year periods**.

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<sup>23</sup> A six-month right of priority may be claimed by an applicant based on their first application filed in a member country of the Paris Convention or the World Trade Organisation Agreement.

The Community Trade Mark will probably have a significant impact on trademark protection in Europe. The cost advantage of filing a single application to protect a trademark throughout the Economic Community will weigh tremendously in its favor. One disadvantage, as far as third parties are concerned, is that Community Trade Mark applications are not rejected on the basis of prior national or Community Trade Mark registrations. Thus, a Trademark Watch Service is a valuable service for owners of prior national rights so that they may oppose Community Trade Mark Applications when appropriate.

A Community Trade Mark<sup>24</sup> may consist of any signs capable of being represented graphically, particularly words, including personal names, designs, letters, numerals, the shape of goods or of their packaging, provided that such signs are capable of distinguishing the goods or services of one undertaking from those of other organisations.

Therefore, signs which may be registered as a trademark include the following:

- word marks including letters, numbers or combination of letters, numbers and words;
- figurative marks, whether or not including words;
- figurative marks in colour;
- colours or combinations of colours;
- three-dimensional marks;
- sound marks.

### **How to argue to obtain Trademark protection for screen designs or GUIs<sup>25</sup>?**

The creation of a screen design or GUIs does not only address the aesthetic feeling of the viewer with graphic means but can also be suitable for differentiating one organisation from another. In other words it can serve as a sign of origin. Logos, signets, background samples or more complex picture designs are basically labelable and, if they are not generally used graphic design elements missing the necessary distinctiveness, registerable as a Trademark.

Regarding the total creation of a GUI a distinctive word-picture or picture-combination-character can sometimes result from combination of different coloured, graphic-formative and text elements, which would be regarded not distinctive for itself. A strong conspicuousness ("eye-catching-effect") in connection with an organisation level above average can serve thereby as an important indication for trademark-legal distinctiveness.

### **Are there any differences or disadvantages compared to other forms of protection?**

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<sup>24</sup> For further information about the Community Trade Mark: <http://oami.eu.int/EN/marque/question.htm>

<sup>25</sup> Yet there is no registration of a GUI as a Community Trade Mark.



The Trademark protection is radically different from the protection granted by Copyright or Design Patent Law. While Copyright and Design Patent Law serve to prevent unauthorized use by a third party, the Trademark Law protects the rightholder from the wrong attribution of his products to another organisation. As a result only the organisation presented by means of the screen design (e.g. Microsoft), and not the designer himself, may enforce a Trademark violation. In consequence, Trademark protection represents a possible protective instrument against confusions of organisation, but not for the creative performance of a designer.

## **5 European Copyright**

### **5.1 Official Documents and Background**

- [Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs](#)
- [Copyright Term Directive](#)
- [Database Directive](#)
- [Directive on the harmonisation of certain aspects of copyright and related rights in the Information Society of 9 April 2001 \(final\)](#)

#### **Introduction**

In all national laws copyright is defined as legal protection of artistic works. But when is a design artistic enough to fulfil the requirements of the law? The national laws require “individuality” or “originality”, qualifications that are highly susceptible to subjective evaluation. Moreover, the qualification of a work of art is generally considered a legal question, which therefore has to be decided on by the judge (adding yet another momentum of uncertainty) – expert witnesses are only asked to answer questions concerning facts.

On the other hand, if a design is protected by copyright, it enjoys protection as such, i.e. independently of any registration, fee or other formal requirement (such as deposit or publication), and its term of protection is very long. So for the designer there are also big advantages in copyright protection as compared with patent or design law.

#### **Is there such a thing as European Copyright Law?**

The question sounds provocative as the EU has undergone considerable endeavours to harmonize the different laws in the copyright domain by “Directives”, i.e. ruling defaults and objectives, which have to be transformed to national law by the member states. But it has to be faced that copyright within the European Communities is still hardly harmonized, let alone unified. Basically, each member State has its own national copyright legislation.



In so far as artistic design is concerned, at least the term of protection has been harmonized by the Copyright Term Directive. Besides, all member states committed themselves to join the RBC. But the biggest uncertainty as seen from the designers point of view, as to when a work is fit to be deemed a work of art and therefore enjoys copyright protection, is still to be decided according to national laws and jurisdictions.

### **What is the actual difference between the copyright protection in continental Europe and UK-Ireland?**

In Continental Europe, the requirements are higher: the protected expression must be in an original or novel form, whereas in UK-Ireland, it is sufficient that the work originates from its author and is not copied from another work.

In the last years though the gap has been narrowing: in British Law and court rulings, the requirement of “some quality or character” of the work has been stressed (the same as in America, where the “sweat of the brow” did not automatically qualify the result for copyright protection), whereas especially in Germany and in Austria quality criteria are deemed irrelevant for copyrightable works as long as the author could make a deliberate, individual decision on how to express himself.

Another difference concerns the rightholder: in Continental Europe, only a natural person can be a rightholder of copyright, whereas in UK-Ireland, legal entities might be rightholders too.

## **5.2 The General Provisions of Copyright**

### **Can screen designs or GUIs be protected by Copyright?**

As a general rule, Copyright is granted to any work independently of its technical context. Thus, works of art enjoy copyright protection, either as “stand alone” products or embedded in a screen design, whether on a standard screen or on any other display (also referred to as “babyface design”<sup>26</sup>, such as on PDAs, mobile phones etc.), whether on screen, projected or not. These works are just integrated into a computer program and may be made perceptible by it, but they are not considered part of the computer program. Provided they fulfil the requirements of individuality or originality, they may therefore enjoy copyright protection as literary or graphical works or even as animated cartoons, independent of the protection of the computer program. The computer program on the other hand is protected by a special regime, which is the Directive for the protection of computer programs (or, to be more precise, the national laws which had to be issued till 1 January 1993 implementing the Directive).

However, this is disputed with regard to GUIs, as GUIs constitute a mixture of functional and formal elements. This mixture leads to a legal dilemma: where the functionality may be protected by patent law in appropriate cases, the scope of

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<sup>26</sup> Aaron Marcus, Babyface Design for Mobile Devices and the Web, Aug. 2001, in: Smith Michael J. and Salvendy, Gavriel, Eds., Proceedings, Vol.2, Human-Computer Interface International (HCII) Conference, 5-10 Aug., 2001, New Orleans, LA, USA, Lawrence Erlbaum Associates, Mahwah, NJ USA, pp. 514

protection granted to the selection, organisation and presentation of features and functions as part of the overall expression and interaction of the GUI (a work of authorship that often requires greater creative effort than the actual programming) remains ambiguous, falling either under the special copyright laws for computer programs, databases or (possibly) under the general copyright laws, the latter not taking into account the technical context. The basic problems concerning the protection of GUIs by copyright are therefore in defining the limits and the scope of the relevant copyright law.

### **5.3 The Computer Programs Directive**

#### **Is the Computer Programs Directive applicable to GUIs?**

As mentioned above, integrated works do not fall under the protection of the Computer Programs Directive. But as far as the GUI is concerned, opinions differ as to whether its external expression enjoyed by the end user (which may be achieved by different underlying algorithms) may or may not be included in the scope of protection. On the whole, there are mainly two positions:

1. The restrictive view: the external form can only be protected according to general rules of copyright. The copyright protection according to the special regulations of the Computer Programs Directive can only apply insofar as the structure and organisation of the GUI and the software control that it entails is part of the operational program.
2. The extensive view: the Computer Programs Directive applies also to the external form of the GUI as a whole.

Academic discussion now seems to be more in favour of the first position<sup>27</sup>, but the second position has been maintained as well by academics<sup>28</sup> as in court decisions<sup>29</sup>.

On the other hand, it is very often the structure of a GUI, its organisation and the interaction with the user, not only the aesthetical, visual form, that constitutes the original feature. Even the more restrictive first position maintains that the structure and organisation of the GUI might be protected, provided that it is part of the operational program.

Explicitly included in the scope of protection according to Art 1.1 of the Directive is the preparatory design material. This concerns the initial stage immediately preceding the actual creation of the program, and refers to data diagrams, descriptions of workflows and scenarios either in drawings or in written descriptions. Explicitly not part of the operational program are manuals and other accompanying instructive or guiding documents.

#### **Was the Computer Program Directive really a necessity?**

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<sup>27</sup> e.g. Walter (Ed.) in: Europäisches Urheberrecht. Kommentar, Vienna-New York 2001; Blocher in Jahnel/Schramm/Staudegger, Informatikrecht, 2000, 103; Loewenheim in: Schricker, Urheberrecht-Kommentar, 1999

<sup>28</sup> Marly, Urheberrechtsschutz, 1995

<sup>29</sup> OLG Karlsruhe 13.06.1994,

This is another question that sounds provocative, but scepticism is somewhat justified, considering that in most national laws the classification of computer programs as literary works was considered just a clarification. Unfortunately, the Directive does not define the term “computer program”<sup>30</sup>, so it is left to the courts to decide on the scope of this term<sup>31</sup> and ultimately on the scope of this right.

On the other hand, it is explicitly in reaction to the restrictive German jurisdiction that the Directive states that no other criteria shall be applied to determine a computer program’s eligibility for protection than its originality “in the sense that it is the author’s own intellectual creation”<sup>32</sup>(Art.1.3), therefore excluding any criteria of minimum quality or individuality. In Germany and in Austria, where a strong distinction is made between copyright and neighbouring rights, the EU Council’s definition deviates from the general definition of an artistic work<sup>33</sup>, so the new definition had to be incorporated in a new paragraph in order to ensure copyright protection to computer programs which otherwise would not have been considered “works of literature”.

### **Can the logic of a computer program, its algorithms or principles be protected by the Computer Programs Directive?**

It is a principal rule of copyright law that ideas as such, abstract concepts, methods and systems are not protected. In Copyright, protection is only granted to the “materialized” idea, the idea that has taken on a form. Therefore mere marketing ideas or business methods cannot enjoy copyright protection. If an idea were formulated as a strategic concept, the copyright protection granted would not go beyond the specific form which the idea has taken on. Therefore, the same basic idea could be used by others without restriction by others, provided it is used in a different scenario.

This principal rule is cited by the Directive, whereas ideas and principles shall not be protected to the extent that logic, algorithms and programming languages contain ideas and principles. This wording indicates that logic, algorithms and programming languages are not as a whole exempted from the scope of the Directive, but only as far as they contain ideas and principles.

So there is room for interpretation. According to the ruling academic opinion, algorithms as abstract mathematical rules providing the answer to a specific problem are excluded from copyright protection. A different view<sup>34</sup> is developing though in relation to computer programs: the creative effort, which is (or should be, at least) in the center of copyright protection, is as a rule situated at a higher level and consists in the finding of a more a less abstract solution to a specific problem, whereas the

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<sup>30</sup> The reason for not defining this term was that any definition was deemed to be obsolete in the shortest of delays because of the rapid change of future technology.

<sup>31</sup> E.g. by referring to the WIPO definition whereas a computer program is “a set of instructions capable, when incorporated in a machine readable medium of causing a machine having information processing capabilities to indicate, perform or achieve a particular function, task or result.”

<sup>32</sup> In fact, it will be enough if the author of the program can prove that the program is not just a copy of another program. It is the general view that this definition is in favour of the UK-Irish understanding of copyright.

<sup>33</sup> In Germany and in Austria, a work is original when it is an expression of the individuality of the author and not an everyday achievement everybody is capable of.

<sup>34</sup> see e.g. Walter (Ed.),2001, 131; Haberstumpf, Computerprogramm und Algorithmus, UFITA 95, 1983, 221; Blocher, 2000, 103

actual programming in a specific language is considered to be more a routine task than a creative effort.

However, this point of view is not yet shared by many. The ruling position<sup>35</sup> still seems to be that mere principles or logics cannot be protected, and it seems generally unclear what an algorithm really is. This position is often justified with the alleged need of the computer industry and its customers for interoperability and openness to future developments.

### **Assuming a designer's contribution to a computer program is protected by the Copyright Programs Directive: who and what is protected?**

According to Art 2.1 of the Directive, the author of the program is protected, i.e. a single person, a group (as a whole) or a legal entity<sup>36</sup>. But where a computer program is created by an employee in the execution of his duties or following the instructions of his employer, all economic rights fall to the employer, unless otherwise arranged by contract (Art 3.1).

The rightholder enjoys exclusive rights, which include the right to do or to authorize any form of reproduction of a computer program, any adaptation, translation, alteration and the reproduction of the results, as well as any other form of distribution to the public (Art. 4).

The term "reproduction" is not clearly defined<sup>37</sup>, opening the door to the national laws for different interpretations; e.g. the Directive does not clearly state whether the loading of the program into the RAM is an act of reproduction that has to be authorized by the rightholder or not. As a general rule, the legitimate interest of the rightholder to profit from the commercial advantages of the usage of the program is considered a good drawing line for the interpretation of the term "reproduction".

Generally, acts of reproduction, adaptation, translation and alteration are permitted to the "lawful acquirer" of the program, as long as they are required by the use of the program in its intended purpose, including error correction and the making of a back-up copy (Art. 5).

The Protection term is determined according to the Copyright Term Directive (which was issued later than the Computer Program Directive) and is therefore granted for up to **70 years after the death of the author**.

## **5.4 The Database Directive**

### **Is it possible to conceive the Database Directive as a possible basis for the protection of Screen Designs or GUIs?**

The Database Directive, which had to be transformed by EU countries to national law until 1 January 1998, explicitly excludes the computer program used in the making or operation of databases from the scope of protection (Art.1.3 of the Database

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<sup>35</sup> Mogel, *Europäisches Urheberrecht*, 2001, 164; Walter, 2001, 131

<sup>36</sup> where the legislation of the member States permits that - the latter reflecting the anglo-irish copyright tradition. In continental European copyright, authorship only pertains to "natural persons".

<sup>37</sup> Probably following the anglo-american copyright tradition.

Directive). The screen design or GUI (as far as it could be considered part of the computer program) is therefore only protected by the Computer Directive or by the general provisions of the Copyright Law. Additionally, Art. 2 lit a of the Database Directive states that the Directive's scope does not interfere with the legal protection of computer programs. For that reason there seems little point in trying to argue in favour of the screen design or GUI as a protected part of the database, at least for the time being.

## 5.5 Advantages and Disadvantages of Copyright

As mentioned above, Copyright only protects “individual” or “original” works. As susceptible to subjective notions, as to what can be considered “individual” or “original”, this requirement may be, it is widely recognized that a work as such does not necessitate any (additional) mental or other effort.

Patent law on the other hand has different requirements, protecting only novel works. In a nutshell, one might say that copyright protects the individual performance, whereas patent law protection can only be sought for achievements above average.

Copyright is considered an exclusive right, i.e. the author can prohibit the use of *his* work. But (or: consequently) where two authors come independently to similar results (regardless of who was first in creating), each one is free to deal with his work as he pleases, but may not interfere with the other’s right to do so as well (whereas patent, design or trademark protection law is really granted to only one legal entity according to priority).

Copyright does not exclude the application of other protective regimes such as the Design law which might be applicable as well. At least where there remains an uncertainty if the actual design is protected by copyright or not, it is certainly advisable to apply, if possible, for the registration of a design.

# 6 *European Competition Law*

## 6.1 Official Documents and Suitability for Design Protection

- [Treaty establishing the European Community \(EEC\) \(signed in Rome on 25 March 1957\), consolidated version](#)

EU Competition Law is provided for by the EEC Treaty and is directly applicable in all member states of the EU. In addition, each member state has its own national system of Competition Law. Compliance at both levels is normally required. In the event of conflict between national law and EU law, EU law prevails. Courts of the member states must also apply EU competition rules as part of domestic laws. While the Competition Laws of member states may primarily be concerned with “fair play” and the maintenance of competition in general, the EU rules have been moulded and interpreted with the original objectives of the EU Treaty in mind, such as the creation of a unified single market.

As a matter of fact there are two different layers of competition law in the member states of the European Community. The treaty establishing the Community includes

Competition Law provisions. Additionally, member states may have their own domestic Competition Laws. In general, domestic Competition laws tend to mirror the EC rules with some exceptions where domestic rules impose additional requirements.

The EC competition rules are set out in Article 81 (formerly Article 85) and Article 82 (formerly Article 86) of the Treaty of Rome. Article 81 prohibits anti-competitive agreements which may have an appreciable effect on trade between member states and which prevent, restrict or distort competition in the Single Market. The Commission can grant individual or group exemptions from this prohibition if there are overriding countervailing benefits such as an improvement in efficiency or the promotion of research and development. Article 82 prohibits the abuse of a dominant position insofar as it may affect trade between member states.<sup>38</sup> There is no possibility of exemption. The current regime is in the process of being reformed.

### **Is the harmonized European Competition Law suitable to protect screen designs or GUIs?**

Regarding the above it seems obvious, that the harmonized European Competition Law is not appropriate to protect image designs within the European Union. Aim and objective of the European Competition Law was to create an Internal Market and not to maintain fair competition between the competitors in general. Therefore counterfeiting or illegally copying screen designs of other competitors may be protected by the domestic competition regulations of the member states<sup>39</sup>, but not through harmonized European Competition Law<sup>40</sup>.

## ***7 Interrelation of the Systems<sup>41</sup> (focusing on computer programs)***

A patent protects the ideas and principles as defined by the patent claims which determine the extent of the protection. Thus, in relation to computer programs, a patent holder may prevent any third party from using a program based on the same ideas and principles. Ways to create a large number of such programs might be found whose source or object code is different from each other and which might be protected in parallel by independent copyrights which would not mutually infringe each other. On the other hand, for the purposes of Directive 91/250/EEC on the legal protection of computer programs, copyright protection is accorded to the particular

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<sup>38</sup> In addition to these provisions, Article 86 (formerly 90) deals with the application of competition rules to public undertakings and undertakings to which member states have granted exclusive rights, and Articles 87-89 (formerly 92 – 94) deal with the EU rules on state aids affecting competition. There is also the merger regulation which requires the prior approval of the Commission for all mergers between companies above certain turnover thresholds, in addition to competition rules governing joint venture activities.

<sup>39</sup> There are many member states like Germany, Switzerland or Austria, which have specific domestic regulations dealing with industrial counterfeit or piracy issues.

<sup>40</sup> But in such a case Article 10bis (Unfair Competition) and Article 2 (National Treatment for Nationals of Countries of the Union) of the [Paris Convention for the Protection of Industrial Property \(March 20, 1883\)](#) could help.

<sup>41</sup> For the purposes of this study, we decided to compare patent and copyright law, not taking special care of intermediate systems such as trademark law or unrelated systems such as competition law.

expression in any form of a computer program, while ideas and principles being an element of a computer program including those of its interfaces are not protected (see above).

A computer program will be accorded copyright protection where the form of expression is original in the sense of being the author's own intellectual creation. In practice, this means that copyright would subsist in the expression in any form of the source code or the object code but would not subsist in the underlying ideas and principles of the source code or object code of a program. Copyright prohibits a substantial copy of the source code or object code but does not prevent the many possible alternate ways to express the same ideas and principles in different source or object codes. It also does not protect against development of an identical or substantially identical program without the knowledge of an existing copyright.

Accordingly, legal protection with respect to the same program may exist both by patent and by copyright law. Their application should, however, be complementary and not have the effect of "double-banking" of protection<sup>42</sup>. This would entail a change to Art 9.1 of the Computer Programs Directive, whereas the "provisions of this Directive shall be without prejudice to any other legal provisions such as those concerning patent rights, trade-marks, unfair competition, trade secrets, protection of semi-conductor products or the law of contract. "

## 8 *Tendencies in Europe*

### **Are there any consequences for the European Patent System because of Article 27 of the [TRIPS-Agreement](#)?**

Article 27(1) of the TRIPS-Agreement states, that "[...], patents shall be available for any inventions, whether products or processes, in **all fields of technology**, provided that they are new, involve an inventive step and are capable of industrial application."

Regarding the expression "all fields of technology", it does not appear acceptable to exclude computer-implemented inventions from patenting. Therefore it should be clarified that excluding "computer programs, as such" from patentability (as in Art. 52 (2) c) and (3) EPC) is inadmissible and should therefore be deleted<sup>43</sup>.

In conformity with this opinion, point i) of a Consultation Paper of the Directorate General<sup>44</sup> about the "Patentability of Computer-Implemented Inventions" says, that „Patents shall be granted for any inventions in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application.

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<sup>42</sup> According to a recent Consultation Paper of the Directorate General for the Internal Market, point ii), the protection granted by copyright should be complementary to patent law: "*Patent protection for a computer-implemented invention does not extend to the expression of a computer program based on that invention, in source code or object code or in any other form.*"

<sup>43</sup> Max-Planck-Institute for Foreign and International Patent, Copyright and Competition Law, cited 29.11.2001, [http://europa.eu.int/comm/internal\\_market/en/indprop/planck.pdf](http://europa.eu.int/comm/internal_market/en/indprop/planck.pdf)

<sup>44</sup> Consultation Paper by the Services of the Directorate General for the Internal Market, cited 29.11.2001,

[http://europa.eu.int/comm/internal\\_market/en/indprop/soften.pdf](http://europa.eu.int/comm/internal_market/en/indprop/soften.pdf) , Page 4

In that context, a computer-implemented invention is considered to belong to a field of technology.“

A planned elimination of the provisions excluding computer programs from patentability in Article 52 European Patent Convention (EPC) had been first suspended by the EPC Revisional Conference in November 2000 with a view to the intended Directive announced by the European Union Commission dedicated to the harmonization of the patenting of computer implemented inventions in the European Union (referred to as “Software Patent Directive”). The Commission wants to submit the proposal for the Directive before the end of the year 2001. The next EPC Revisional Conference will take place in June 2002.

## **9 Final Conclusions and Recommendations**

According to a recent study<sup>45</sup> mandated by the German Federal Ministry for Economics and Technology,

- the theory that patents facilitate market access, above all for young companies, could not be confirmed.
- the strategic benefit of patents in international competition is obvious, but concentrated on very few large companies.
- it is impossible to answer the question of patent eligibility of computer programs with a clear “yes” or “no”<sup>46</sup>, although there is a statutory exception for “computer programs as such”. Some areas of software technology are eligible for patent protection, others are not.
- the result-oriented case by case analysis of the court decisions shows that the following areas of software technology are eligible for patent protection: control engineering, CAD/CAM, digital signal processing, operating systems, aid programs, data compression and client management. In contrast, no patent protection is available for word processing, tabulating programs, data encryption, authentication and time series analysis. The patentability of administration software remains unclear for the time being.
- it becomes clear - as far as the line of reasoning of the respective court decisions is concerned - that the patentability of a computer program is affirmed, if its content is related to the area of engineering sciences.
- the possibility of a compulsory licence (as “ultima ratio”) must be examined if, under the assumption of careful examination of the required non-obviousness,

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<sup>45</sup> The Fraunhofer Institute for Systems and Innovation Research ([Fraunhofer ISI](#)), [Max-Planck-Institute for Foreign and International Patent, Copyright and Competition Law](#), Fraunhofer Patent Office for German Research ([Fraunhofer PST](#)), Micro- and Macro-economical Implications of the Patentability of Software-Implemented Inventions: Intellectual Property Rights in the Information-technology in the Area of Conflict of Competition and Invention, Research Project for the [German Federal Ministry for Economics and Technology](#) – Final Report, cited 02.12.2001, <http://www.bmwi.de/textonly/Homepage/download/technologie/Softwarepatentstudie.pdf>

<sup>46</sup> At least as far as Europe is concerned



a patent be awarded for a software invention which proves to be crucial for the further development of the entire branch. A compulsory licence can be awarded according to current law if a “normal” licence is granted by the patent holder under unacceptable conditions and (simultaneously) the permission to use it is in the public interest.

Nevertheless, it must be assessed that recent developments in the field of European Patent Law include different options assimilating US-American developments in patent law:

- European law could ensure that the mere use of a computer / computer program to implement an invention constitutes an invention within technology, as appears to be the case in the USA. This would be a substantial change from basic principles of European patent law. It would be highly controversial. But it would bring European law into alignment with U.S. law on patentability of business methods. This would allow a patent to be granted on a novel and an unobvious invention which has no other connection with technology than being implemented on a computer<sup>47</sup>.

*or alternatively*

- European law could be altered to exclude any requirements that patents be limited to technology. If it were accepted that business methods should be patentable *simpliciter* then this is the logical consequence. But any attempt to make such a change would cause great controversy. This option might stretch the principles to a breaking point by no longer requiring a connection with technology. Most experts would say that this goes beyond the basic principles of patent law. But if a non-technological invention is new and unobvious and is useful in commerce or industry then society should encourage the making of such inventions and their use as a basis for innovation by granting patents on them<sup>48</sup>.

Taking into account the findings of the study mandated by the German Federal Ministry mentioned above, at present neither a radical restriction nor an expansion of the patentability of software can be recommended. Consequently, Europe should not pursue the US American development and accordingly not broaden the patenting of software.

Furthermore, the patent offices should have sufficient skilled personnel able to conduct the demanding examination in the software area, especially in view of the required non-obviousness, in order not to hinder the sequential innovations through trivial patents.

Finally it is our point of view that the main sources for the legal protection of screen designs within the European Union are Design Patent and Copyright – possibly Trademark Law, whereas European Function Patent and (harmonized) Competition Law offers no adequate protection. The same applies to GUIs which, however, may additionally be protected by Function Patent.

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<sup>47</sup> Hart, Holmes, Reid, The Economic Impact of Patentability of Computer Programs, cited 29.11.2001, [http://europa.eu.int/comm/internal\\_market/en/indprop/study.pdf](http://europa.eu.int/comm/internal_market/en/indprop/study.pdf) , Page 9.

<sup>48</sup> Hart, Holmes, Reid, The Economic Impact of Patentability of Computer Programs, cited 29.11.2001, [http://europa.eu.int/comm/internal\\_market/en/indprop/study.pdf](http://europa.eu.int/comm/internal_market/en/indprop/study.pdf) , Page 9.

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## ANNEX 1

### ***International Legal Background***

**Global Players:** Intellectual property protection is very strongly subjected to international influences as a successful design product, esp. screen design, is bound to be marketed internationally. Still another issue is the clash between the ubiquity of cyberspace and the territoriality of the national law. This leads to an increasing need for protective standards on an international, if not global level.

The main forces behind international agreements in response to this need on a global level are the World Intellectual Property Organisation (WIPO) and increasingly the World Trade Organisation (WTO).

Other organisations dedicated to the protection of intellectual property are the AIPPI<sup>49</sup>, the ALAI<sup>50</sup>, the ICC<sup>51</sup>, the LIDC<sup>52</sup>, and in Germany the GRUR<sup>53</sup> and the Max Planck Institute for Foreign and International Patent, Copyright and Competition Law.

**The WIPO** administers more than 20 international treaties for the protection of intellectual property (which includes industrial rights as well as copyright and unfair competition prevention), some of which have been revised several times. The most important treaties are the Paris Convention for the protection of Industrial Property (PCT), the Revised Berne Convention (RBC), the Madrid Agreement Concerning the International Registration of Marks (MAM) and the Hague Agreement for the International Deposit of Industrial Designs (HA).

The PCT and the RBC are comparable to constitutions on an international level, the PCT covering industrial rights and the RBC covering copyrights. Both treaties are the basis for associations enjoying the status of international organisations according to international law. To the present day<sup>54</sup>, there are 162 member states to the PCT and 148 member states to the RBC.

The MAM and the HA are related treaties to the PCT, enabling international registration and maintenance of marks and designs.

As to the global copyright situation, efforts to adapt the RBC (the last revision dating from 1971) to the changing technical and commercial background were deemed futile due to the widening gap of interests and the proliferating conflict between north and

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<sup>49</sup> Association Internationale pour la Protection de la Propriété Intellectuelle

<sup>50</sup> Association Littéraire et Artistique Internationale

<sup>51</sup> International Chamber of Commerce

<sup>52</sup> Ligue Internationale du Droit de la Concurrence

<sup>53</sup> Deutsche Vereinigung für gewerblichen Rechtsschutz und Urheberrecht e.V. (=German Association for Industrial Property and Copyright Law)

<sup>54</sup> Status on October 15, 2001

south, inhibiting the necessary unanimous agreement necessary for such a revision of the RBC. Therefore only a mere protocol to the RBC could be agreed on, eventually leading to the WIPO Copyright Treaty (WCT), dating from December 1996. This treaty, which was also signed by the European Communities and all of its member states, is not yet in force, as it has till now not been ratified / joined by a sufficient number of member states: so far<sup>55</sup> only 28 member states have ratified / joined this treaty (30 member states are necessary for its coming into force). Among the “missing” member states are the European Communities and its member states.

Nothing comparable exists in the particular design field, where the only international law is The Hague Agreement Concerning International Registration of Industrial Designs. Its scope implies a unification of registration systems; the protection conferred is recognized by each national regime<sup>56</sup>.

**The WTO** results from the former General Agreement on Tariffs and Trade (GATT), a global organisation dedicated to eliminating the obstacles in international trade. The GATT system itself was thoroughly changed by including new thematic interests in the GATT agreement, such as intellectual property issues (Trade Related Intellectual Property Agreement, TRIP) and the trade with services, which eventually led to the inclusion of the GATT in the newly founded WTO.

According to the TRIP-Agreement, this parallelism of the different agreements of the WIPO and the WTO should not entail concurrent protections, but protection supplementing each other<sup>57</sup>.

**The European Communities:** The WCT, though not yet in force, was the basis for the latest activities of the European Commission in the field of copyright. Whereas the importance of the WIPO as the thriving force in copyright matters is more and more taken over by the European Communities, it is the implementation of the WCT and its provisions which have inspired and speeded up the latest Directive on copyright in the information society<sup>58</sup> of the European Commission as well as the Digital Millennium Copyright Act in the United states.

Naturally the RBC has affected the legal policies of the European Communities ever since. When the appropriate way to protect computer programs was on the Commission's agenda (which eventually led to the Computer Directive in 1991), computer programs were explicitly defined as “literary works within the meaning of the Berne Convention”<sup>59</sup> (and not just a new category of works protected by copyright). Probably the most important reason for this was to ensure that computer programs enjoy the nearly world-wide minimum standard of protection that the RBC grants to literary works<sup>60</sup>, esp. national treatment, i.e. the principle of being granted

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<sup>55</sup> Status on October 15, 2001

<sup>56</sup> Barrera, Design Law: Protecting a Paradox, cited 30.11.2001, <http://www.jus.unitn.it/cardoza/Review/Business/Barrera1.html>

<sup>57</sup> According to its Art 2 (1) and Art 9 (1), the relationship to the WIPO is one of mutual support, and the members of the TRIPs-agreement are to respect the PCT and the RBC.

<sup>58</sup> dating from May 22, 2001

<sup>59</sup> Art 1.1 of the Directive; see also Art.10 TRIPs-Agreement and Art 4 WCT

<sup>60</sup> Had the regulations protecting computer programs been established as a right of its own kind, it would have been a very hard task to negotiate and to agree on these rights on a world-wide basis (esp. including the “third world” countries) in an appropriate and fast way.

the same rights as national authors<sup>61</sup>. Another reason for this definition was undoubtedly the endeavour to gain influence on the interpretation of the RBC.

In relation to design protection, latest developments were the Proposals for a Council Regulation on Community Design. In so far as software is concerned, a new proposal is currently debated regarding the protection of computer implemented inventions. At the moment, it seems rather unclear whether this new right will be integrated into the known categories of copyright or patent law or whether it will be classified as a right of its own<sup>62</sup> kind.

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<sup>61</sup> It has to be mentioned though that this provision of national treatment is solely applicable to authors of member States which grant similar, comparable rights to their own authors, i.e. the same standard of copyright protection (reservation of reciprocity).

<sup>62</sup> Also called a right "sui generis".

## ANNEX 2

### ***Links: URLs for Hard Copy Readers***

**European Patent Office** <http://www.european-patent-office.org>

#### **Official Documents and Definitions**

Proposal for a Council Regulation on the Community patent - COM/2000/0412 final

<http://www.paemen.com/pdf/communitypatentregprop.pdf>

Consultation Paper by the Services of the Directorate General for the Internal Market about "The Patentability of Computer-Implemented Inventions"

[http://europa.eu.int/comm/internal\\_market/en/indprop/soften.pdf](http://europa.eu.int/comm/internal_market/en/indprop/soften.pdf)

Amended proposal for a European Parliament and Council Directive approximating the legal arrangements for the protection of inventions by utility model

<http://pdf/utilitymodelamendedprop.pdf>

European Patent Convention (EPC)

<http://www.european-patent-office.org/legal/epc/index.html>

Directive 98/71/EC of the European Parliament and of the Council of 13 October 1998 on the legal protection of designs

[http://europa.eu.int/eur-lex/en/lif/dat/1998/en\\_398L0071.html](http://europa.eu.int/eur-lex/en/lif/dat/1998/en_398L0071.html)

Amended Proposal for a Council Regulation on Community Design (21 June 1999)

[http://europa.eu.int/comm/internal\\_market/en/indprop/designen.pdf](http://europa.eu.int/comm/internal_market/en/indprop/designen.pdf)

New amended Proposal for a Community Design Regulation (20 October 2000)

[http://europa.eu.int/comm/internal\\_market/en/indprop/com660en.pdf](http://europa.eu.int/comm/internal_market/en/indprop/com660en.pdf)

## **European Trademark Protection**

### **Official Documents and Suitability for Design Protection**

First Council Directive 89/104/EEC of 21 December 1988 to approximate the laws of the Member States relating to trademarks

<http://oami.eu.int/EN/aspects/direc/direc.htm>

Council Regulation 40/94/EC of 20 December 1993 on the Community trade mark usually referred to as "the basic Regulation" or the "Community Trade Mark Regulation (CTMR)"

<http://oami.eu.int/EN/aspects/reg/reg4094.htm>

Commission Regulation 2868/95EC of 13 December 1995 implementing Council Regulation 40/94/EC on the Community trade mark

<http://oami.eu.int/EN/aspects/reg/reg2868.htm>

Commission Regulation 2869/95/EC of 13 December 1995 on the fees payable to the Office for Harmonization in the Internal Market (Trade Marks and Designs)

<http://oami.eu.int/EN/aspects/reg/reg2869.htm>

Commission Regulation 216/96/EC of 5 February 1996 laying down the rules of procedure of the Boards of Appeal of the Office for Harmonization in the Internal Market (Trade Marks and Designs)

<http://oami.eu.int/EN/aspects/reg/reg216-96.htm>

## **European Copyright**

### **Official Documents and Background**

Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs

[http://europa.eu.int/eur-lex/en/lif/dat/1991/en\\_391L0250.html](http://europa.eu.int/eur-lex/en/lif/dat/1991/en_391L0250.html)

Copyright Term Directive

[http://europa.eu.int/eur-lex/en/lif/dat/1993/en\\_393L0098.html](http://europa.eu.int/eur-lex/en/lif/dat/1993/en_393L0098.html)

Database Directive

[http://europa.eu.int/eur-lex/en/lif/dat/1996/en\\_396L0009.html](http://europa.eu.int/eur-lex/en/lif/dat/1996/en_396L0009.html)

Directive on the harmonisation of certain aspects of copyright and related rights in the Information Society of 9 April 2001 (final)

[http://europa.eu.int/smartapi/cgi/sga\\_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=EN&numdoc=32001L0029&model=guichett](http://europa.eu.int/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=EN&numdoc=32001L0029&model=guichett)

## **European Competition Law**

### **Official Documents and Suitability for Design Protection**

Treaty establishing the European Community (EEC) (signed in Rome on 25 March 1957), consolidated version

[http://www.europa.eu.int/eur-lex/en/treaties/livre2\\_c.html](http://www.europa.eu.int/eur-lex/en/treaties/livre2_c.html)

## **Tendencies in Europe**

TRIPS-Agreement

[http://www.wto.org/english/docs\\_e/legal\\_e/27-trips.pdf](http://www.wto.org/english/docs_e/legal_e/27-trips.pdf)

## **ANNEX 1**

World Intellectual Property Organisation (WIPO) <http://www.wipo.org>

World Trade Organisation (WTO) <http://www.wto.org>

AIPPI <http://www.aippi.org/>

ALAI <http://www.alai.org/>

ICC <http://www.iccwbo.org/>

GRUR <http://www.grur>

Max Planck Institute for Foreign and International Patent, Copyright and Competition Law



<http://www.intellecprop.mpg.de/>

Paris Convention for the protection of Industrial Property (PCT)  
<http://www.wipo.org/treaties/ip/paris/index.html>

Revised Berne Convention (RBC)

<http://www.wipo.org/treaties/ip/berne/index.html>

Madrid Agreement Concerning the International Registration of Marks (MAM)  
<http://www.wipo.org/treaties/registration/madrid/index.html>

Hague Agreement for the International Deposit of Industrial Designs (HA)  
<http://www.wipo.org/treaties/registration/hague/index.html>

WIPO Copyright Treaty (WCT)

<http://www.wipo.int/treaties/ip/copyright/index.html>

Intellectual Property Agreement (TRIP)

[http://www.wto.org/english/docs\\_e/legal\\_e/27-trips.pdf](http://www.wto.org/english/docs_e/legal_e/27-trips.pdf)

Digital Millennium Copyright Act

[http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=105\\_cong\\_bills&docid=f:h2281enr.txt.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=105_cong_bills&docid=f:h2281enr.txt.pdf)