

WIPO



SCIT/SDWG/3/5
ORIGINAL: English
DATE: April 10, 2003

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WORLD INTELLECTUAL PROPERTY ORGANIZATION
GENEVA

STANDING COMMITTEE ON INFORMATION TECHNOLOGIES STANDARDS AND DOCUMENTATION WORKING GROUP

Third Session
Geneva, May 5 to 8, 2003

REPORT ON THE PROGRESS MADE CONCERNING TASK NO. 20
(FIGURATIVE ELEMENTS OF MARKS)

Document prepared by the Secretariat

1. In the Standards and Documentation Working Group Task List, Task No. 20 is related to the preparation of a recommendation on how figurative elements of marks should be captured and displayed electronically.
2. As approved by the Standards and Documentations Working Group (SDWG) of the Standing Committee on Information Technologies (SCIT), a questionnaire, requesting responses by October 20, 2001, was circulated in July 2001, for the purpose of collecting data from the intellectual property Offices, which would in turn be collated and presented in a subsequent session, together with a recommendation as to the next steps in the process.
3. Document SCIT/SDWG/2/9 (which included the questionnaire and its circular) was presented to the SDWG at its second session and included the collated results of the questionnaire in the languages in which the responses were made. The SDWG agreed that the next step in this process was to analyze the results of the questionnaire and to present the results of such an analysis to the third session of the SDWG.

4. The Annex to this document contains the results of the analysis, together with observations made by the International Bureau on the basis of its experience in the capture and display of figurative elements of marks.

5. It is proposed that the next step in the process would be the establishment of a Task Force for the elaboration of a standard concerning the capture and display of figurative elements of marks and to nominate a Task Force Leader.

6. The SDWG is invited to note the contents of this document and to establish a Task Force for the purposes of the elaboration of a standard for the capture and display of figurative elements of marks and to name a Task Force Leader.

[Annex follows]

ANNEX

REPORT ON THE SURVEY ON FORMATS CURRENTLY IN USE
BY INDUSTRIAL PROPERTY OFFICES FOR FIGURATIVE ELEMENTS OF MARKS
(TASK No. 20)

SUMMARY

1. This document presents an analysis of the questionnaire regarding Task No. 20 of the SDWG Task List and provides recommendations concerning the electronic scanning, publication and display of figurative elements of marks.

INTRODUCTION

2. The following 45 Offices responded to the questionnaire: AM, AT, BG, BY, CA, CH, CN, CO, CY, CZ, DE, EC, ET, ES, FR, GE, HU, IE, JP, KG, KR, LC, LT, LV, MC, MD, MG, MK, MX, MZ, NO, PA, PE, PG, PL, RU, SA, SE, SK, SI, TH, UA, US, UY and OHIM.

3. While the analysis of the results of the questionnaire has provided a detailed insight into current practice for the electronic management of figurative elements of marks, it became apparent that some questions were unclear for the respondents and therefore the conclusions drawn from those particular questions would require some additional interpretation.

ANALYSIS OF THE SURVEY

Questions 1 and 2 :

4. Thirty-six Offices responding to the questionnaire process figurative elements of marks as digital images, although 34 Offices have no legal framework to do so.

Question 3 :

5. This question classified Black & White (BW) images and Grayscale (GS) images together. While this may be reasonable from a legal perspective, from a technical perspective, it would have been better for the question to group Grayscale and color images together. Consequently the responses to this question are a mixture of the two technical formats, making interpretation of the results inconclusive. Nonetheless, the results are as follows:

(i) BW and GS: TIFF is clear preference with 20 out of 36 Offices responding that they are using TIFF. Other formats used were: JPEG, GIF, BMP and PCX.

(ii) Color: TIFF and JPEG were equally preferred by responding Offices. Other formats used were: GIF, BMP and PCX.

Question 4 :

6. The majority of responding Offices indicated that digital images are displayed through 'expandable thumbnails.'

Question 5 :

7. Ninety-five percent of responding Offices scan the figurative elements of marks. It was not possible to determine a real consensus on digital-image size (although 8x8 cm is mentioned more often than any other size).

Question 6 :

8. Most respondents perform quality control by looking at the resultant digital images on the screen and through the effective use of the scanning tools (namely scanner calibration and color profile adjustment). One respondent prints the digital images for quality control and another sends a proof to the applicant for validation.

Question 7 :

9. Offices reported varying numbers of digital images stored on their computer systems, the largest being some 1.4 million images.

Question 8 :

10. The following information was received regarding question 8:

(a) All respondents felt that no new format is required.

(b) Twenty-two respondents reported to be in favor of using freely available non-proprietary standards, while 20 respondents were not in favor, resulting in the impression that this question was unclear.

(c) Twenty-eight respondents were in favor of the use of an exclusive format (e.g., TIFF), while 10 respondents were not in favor. Three respondents out of 29 added that they also use JPEG. This would lead to the conclusion that the majority of respondents were in favor of standardizing on one format. It should be understood, however, that TIFF is not a 'file' format but rather a 'header file' format, meaning that there are dozens of different file formats with a TIFF 'header extension' (e.g., TIFFuncompressed, TIFFGroup4, TIFFlzw, TIFFpackbits, TIFFjpeg, etc.).

Further comments/remarks :

11. Below is a note reproduced from the questionnaire completed by the United States Patent and Trademark Office (USPTO).

“There is a strong need for standards that are supported uniformly (i.e., all vendors that support that format create files that are capable of being correctly supported by all the other vendors supporting that format). License restrictions are a potentially important consideration where considering expanded usage of GIF.”

ELECTRONIC MANAGEMENT OF FIGURATIVE ELEMENTS OF MARKS

Definitions:

12. Pixel: “PICTure Element,” is the basic unit of programmable color on a computer display or in a computer image. It is the unit used to measure digital images. The color of a pixel is partly determined by how many bits are used to store the pixel.

Resolution: is mostly measured in ‘dots per inch’ (DPI). The term *dot* in this context means pixel. DPI gives you the number of pixels per inch that are displayed on a screen, printed or scanned. When scanning, DPI is the actual size of the image which has been scanned. (Actual size = size in pixels / resolution.)

Class of images :

13. Black and White (BW): a true black & white image is an image where the color of a pixel is stored on one bit (values 0 or 1).

Grayscale (GS): is an image where the color of a pixel is stored on eight bits (values 0 to 256), with no color information.

Color: is an image where the color of a pixel is stored on 24 bits, with color information. In fact there are three different eight-bit values, one eight-bit value for each of RED, GREEN and BLUE. The combination of the three eight-bit values provides the desired color.

File format :

14. As a result of the existence of these three classes of image and for other technical and historical reasons, there have been different formats developed for each class of image. From a technical perspective, the size of the file has been (and still is) an issue. From a historical perspective the various image formats were initially proprietary (e.g., PCX, BMP, GIF, ...).

15. Technicians tend to use the most appropriate format that suits their requirement. For example: a BW image can be stored in a color format by simply using only two colors (black and white) for the pixels, but the problem might be that 24 bits are used to code a pixel where only one is necessary, resulting in a storage requirement that is 24 times bigger than necessary.

16. A clear advantage of using a dedicated format for each class of image is the ease of automating the processing of the image files, since it is only necessary to take into consideration the format of the file and not the content.

WIPO EXPERIENCE WITH ELECTRONIC MANAGEMENT OF DIGITAL IMAGES

Current status :

17. WIPO started disseminating digital images in 1996 (MECA notifications: TIFF Group 4 and JPEG). Currently some 24 countries receive digital images.

18. Digital images for the trademarks were received by WIPO from Switzerland in 2001, followed by Australia in 2002, and the Benelux Trademark Office in 2003.

19. Standard File Transfer Protocol (FTP) is generally used to electronically transfer the image files (based on a common agreement established with each Office).

20. The reception of digital images from Offices has been a challenging task. The procedure in place today is a result of a long negotiation process and thorough testing. The challenging aspects were: file format, image size, and color. Although WIPO made some recommendations, different file formats are still being used (TIFF Group 4 and JPEG for Switzerland, TIFF uncompressed for Australia, GIF and JPEG for the Benelux Trademark Office; Australia and Switzerland do not use color).

RECOMMENDATIONS

From the Questionnaire :

21. There are three important conclusions to be drawn from analyzing the results of the questionnaire:

(a) TIFF and JPEG are widely used and seem to be the *de facto* standards on the market.

(b) The majority of responding Offices are willing to accept an exclusive format for the transfer of digital images.

(c) The observation made by the USPTO suggests that it would be necessary to select a standard format that is supported by the majority of image processing software.

Issues not discussed in the Questionnaire:

22. Actual size of an image: the current requirement for Madrid system figurative elements of marks is a square of 8x8 cm. There is no specific requirement concerning the size of a digital image. A better approach may be to measure digital images in pixels, and to require that a digital image respects a given minimum and maximum number of pixels.

23. The issue of color of digital images is not simple. There is no simple way to ensure that the color will appear to be the same for the applicant, the national office and WIPO. The WIPO experience illustrates that good use of the current imaging tools (scanner, software, etc.) will generally enable accurate reproduction of the colors; however, this is not 100% certain.

24. Given the difficulty in discussing the issue of image format, it appears to be far more complex to conclude a discussion of the issue of color (e.g., color space, color gamut, ICC profiles and calibration would need to be understood by the participants). It may well be necessary to engage an independent expert who can provide advice concerning the best practices and standards on such a technically challenging subject.

25. On the basis of the analysis given above, it is hereby recommended that:

(a) File format restricted to TIFF and JPEG:

BW: TIFF uncompressed or TIFF Group 4.
GS: JPEG 8 bits.
Color: JPEG 24 bits.

(b) File formats that are subject to licensing and proprietary format not used:
GIF, TIFF Lzw.

(c) Image size:

BW: 2048x1536 pixels.
GS and Color: 1024x768 pixels (xVGA size: actual full screen size of a current Windows screen).

BW size may need to be more than GS and Color size, since experience dictates that BW is usually scanned at a higher resolution.

(d) Color:

Color images should use the RGB color space only, since it is the most common color space used on computers and will prevent transformation from one space to another.

[End of Annex and of document]