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**Datasheet for the decision
of 27 January 2010**

Case Number: T 0132/07 - 3.5.04

Application Number: 01106713.9

Publication Number: 1139645

IPC: H04N 1/00

Language of the proceedings: EN

Title of invention:

A facsimile type electronic mail apparatus and a method for
controlling thereof

Patentee:

Panasonic Corporation

Opponent:

Canon Inc.

Headword:

-

Relevant legal provisions:

-

Relevant legal provisions (EPC 1973):

EPC Art. 56

RPBA Art. 13(1), (3)

Keyword:

"Inventive step (no)"

"Auxiliary requests I, II, III admitted"

Decisions cited:

T 1007/05

Catchword:

-



Case Number: T 0132/07 - 3.5.04

DECISION
of the Technical Board of Appeal 3.5.04
of 27 January 2010

Appellant: Panasonic Corporation
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 27 November 2006
revoking European patent No. 1139645 pursuant
to Article 102(1) EPC 1973.

Composition of the Board:

Chairman: F. Edlinger
Members: A. Teale
B. Müller

Summary of Facts and Submissions

I. This is an appeal by the patent proprietor against the decision by the opposition division to revoke European patent 1 139 645, the opposition having been based on Article 100(a) (novelty and inventive step), 100(b) and 100(c) EPC 1973. The patent has a filing date of 12 April 1996 and derives from European patent application 01 106 713.9, a divisional application of European patent application 99 124 161.3 (hereinafter referred to as the "parent" application), itself a divisional application of European patent application 96 105 799.9 (hereinafter referred to as the "grandparent" application).

II. Claim 1 as granted reads as follows:

"A facsimile type electronic mail apparatus comprising: a scanner (6) for scanning a paper document to convert the image of the document into corresponding image data; a compression device (8A) for compressing the image data; a data format converter (5) for converting the compressed image data into an electronic mail format; an operation panel (7F) having an input key for inputting a destination telephone number or a destination address of an electronic mail; an electronic mail transmitter (9A) for transmitting the format-converted image data to the destination address according to an electronic mail protocol via a computer communication network (9B); a fax modem (18) for transmitting the image data to the destination determined by the input telephone number via a telephone network according to a facsimile protocol; a decision device (1) for deciding whether the image data

is transmitted via the telephone network according to the facsimile protocol or is transmitted via the computer communication network (9B) according to the electronic mail protocol, based on a result of selection by an operator, characterised in that said operation panel (7F) has a start key to start a transmitting operation, and that said scanner (6), said compression device (8A), said data format converter (5) and said electronic mail transmitter (9A) are sequentially operated in the order to transmit image data via the network according to the electronic mail protocol when said start key is pushed after an electronic mail transmission is designated by the selection button, and that said scanner (6), said compression device (8A), said a fax modem (18) are sequentially operated in the order to transmit image data via the telephone network according to the facsimile protocol when said start key is pushed after the facsimile transmission is designated by the selection button."

III. The reasons for the appealed decision stated *inter alia* that the subject-matter of claim 1 as granted (main request) and claim 1 according to a first auxiliary request lacked inventive step, Article 56 EPC 1973, in view of the following document and common general knowledge:

D2: WO 94/03994 A1.

The decision under appeal also referred to the following document and held that it belonged to the prior art:

D5: "Computer Networks", A.S. Tanenbaum, 1996, 3rd edition, pages 7 to 44 and 643 to 663.

Regarding the main request, the reasons for the decision stated that the subject-matter of claim 1 as granted differed from the disclosure of D2 essentially in the provision of a single key to initiate the selected transmission method. This amounted to a mere automation of an otherwise perfectly known procedure. The provision of a single key would not have posed any particular and unexpected difficulties to the skilled person. Moreover neither the nature of the scanning operation nor that of conversion into an email format were specified in any particular manner in claim 1. Also claim 1 should not be interpreted in such a manner that it concerned a single device only.

Regarding the first auxiliary request, the subject-matter of claim 1 differed from that of claim 1 as granted essentially in that it was now specified that the email format was "in conformity with Multipurpose Internet Mail Extensions" (MIME). The skilled person would, when sending out an email, have selected a format which would be understood by a receiving party. The MIME format, being very common, would therefore have been an obvious choice for the person skilled in the art.

IV. In a statement of grounds of appeal the appellant requested that the decision be set aside and the patent maintained on the basis of the claims as granted (main request) or on the basis of the claims according to auxiliary requests I, II or III filed with the statement of grounds of appeal.

V. Auxiliary request II, filed with the statement of grounds of appeal, subsequently became the appellant's final auxiliary request III, claim 1 reading as follows:

"A facsimile type electronic mail apparatus comprising: a scanner (6) for scanning a paper document to convert the image of the document into corresponding image data; a compression device (8A) for compressing the image data; a data format converter (5) for converting the compressed image data into seven-bit text-encoded image data, said data format converter (5) adding a header to the seven-bit text-encoded image data to obtain an e-mail format image data in conformity with Multipurpose Internet Mail Extensions; an operational panel (7F) having an input key for inputting a destination telephone number or a destination address of an electronic mail; an electronic mail transmitter (9) for transmitting the format-converted image data to the destination address according the [sic] an electronic mail protocol via a computer communication network (9B); a fax modem (18) for transmitting the image data to the destination determined by the input telephone number via a telephone network according to a facsimile protocol; a decision device (1) for deciding whether the image data is transmitted via the telephone network according to the facsimile protocol or is transmitted via the computer communication network (9B) according to the electronic mail protocol, based on a result of selection by an operator, wherein said operational panel (7F) has a start key to start a transmitting operation, and that said scanner (6), said compression device (8A), said data format converter (5) and said electronic mail transmitter (9) are sequentially

operated in the order to transmit image data via the network according to the electronic mail protocol when said start key is pushed after an electronic mail transmission is designated by the selection button, and that said scanner (6), said compression device (8A) and said fax modem (18) are sequentially operated in the order to transmit image data via the telephone network according to the facsimile protocol when said start key is pushed after the facsimile transmission is designated by the selection button."

VI. Regarding the main request, the appellant argued *inter alia* that, starting from D2, in particular the "case 3" embodiment involving symbol recognition for selecting the apparatus function, the objective technical problem was to simplify and secure the operation of the system known from D2 against accidental malfunctions. The invention taught to provide a single start key, thus ensuring that all steps were carried out in the correct order and making the device behave the same way whether an email or a fax was being sent, thus making it easier to use. The appellant argued that no evidence had been produced that the invention merely automated a "perfectly normal procedure". Moreover it would not have been clear, starting from D2, how to implement the single start key. Starting from document D2, a person skilled in the art would find a reference to email transmission, but no hint or suggestion as to how to implement this. The skilled person would have been aware of several possibilities for implementing email transmission, including adopting the email communication protocol X.400. D5 gave an overview of available email procedures in the last two paragraphs on page 644, stating at lines 31 to 32 that X.400 was

"an official international standard strongly backed by all the PTTs worldwide, many governments and a substantial part of the computer industry". X.400 specified an OSI standard protocol for exchanging and addressing electronic messages for which the first recommendations were published in 1984, a substantially revised version in 1988 and new features were added in 1992. In Europe and Asia X.400 was quite widely implemented in the 1990s. The skilled person would not have chosen MIME, since, as D5 stated, MIME was not a standard yet at the filing date of the patent. Moreover, as fax transmissions were inherently secure, the person skilled in the art would have tried to keep the email communication secure and would thus have decided against a comparatively new, open format such as MIME, preferring the security offered by X.400. The X.400 functions for integrity and security were developed and deployed much earlier than their SMTP counterparts, and important features of X.400 included structured addressing, the possibility of multimedia content (predating MIME) and integrated security capabilities. All of this would have made X.400 an obvious choice for a person skilled in the art selecting an email protocol at the filing date of the patent.

Regarding what subsequently became the appellant's final auxiliary request III, the appellant argued *inter alia* that claim 1 had been amended to show that the data format converter was specifically adapted to convert the compressed image data into MIME conformant image data. The combination of the definition of which email format was to be used and the one-button operation conferred an inventive step on the subject matter of claim 1.

- VII. In a response dated 31 August 2007 the opponent (respondent) questioned the inventive step of the subject-matter of claim 1 as granted because the patent did not mention any technical difficulty in providing a single start key. Moreover claim 1 according to what subsequently became the appellant's final auxiliary request III merely set out a totally standard email procedure.
- VIII. The appellant made further arguments in a submission dated 2 January 2008.
- IX. In a letter dated 7 October 2008 the appellant informed the EPO of a change of name, requested that the EPO register the new name and filed a corresponding extract from the Japanese commercial register.
- X. The board set out its preliminary opinion on the appeal in an annex to a summons to oral proceedings. The board drew attention to the fact that different embodiments of D2 were referred to in the decision under appeal and by the parties. The "case 2" embodiment in D2, in which the user selected a "fax" or "E-mail" transmission mode before scanning started, was also considered to be a possible starting point for assessing inventive step.
- XI. In a submission dated 22 December 2009 the respondent argued *inter alia* that the "case 2" embodiment in D2 was an appropriate starting point for assessing inventive step.
- XII. With a submission dated 28 December 2009 the appellant filed amended claims according to first and second

auxiliary requests. The appellant argued that the "case 2" embodiment was a possible starting point for assessing inventive step. D2 (page 18, referring to figure 12) stated that the user was prompted for auxiliary data needed to process the scanned data, which might include a fax number if the image was to be faxed. Hence the fax number was entered after the scripted button had been pressed. D2 did not disclose that compressed image data was converted into an email format by a data format converter. D2 also did not teach a decision device for deciding whether the image data was to be transmitted as a fax or an email. The invention resulted in streamlined and simpler operation of the apparatus compared to that of D2.

XIII. In a submission dated 18 January 2010 the respondent argued that the appellant's auxiliary requests were inadmissible. Moreover initiating operations and indicating choices by pressing keys or buttons was commonplace at the filing date. Also the claimed sequences of operations to send a fax or an email were essentially inevitable given their nature. Regarding the decompression of scanned image data in the host computer in D2, the respondent pointed out that claims 26, 27 and 29 of D2 showed that such decompression was merely optional. As to the entry of a fax number when sending an image as a fax, the respondent argued that claim 1 was not limited as to when the fax number was entered. Regarding the claimed decision device, such a device must be present in D2 to respond to user selections made from the menu shown in figure 3. The respondent also questioned the basis for the expression "electronically interconnected" in claim 1 of the auxiliary requests, since the

grandparent application had used the expression "electrically interconnected".

XIV. With a letter dated 21 January 2010 the appellant filed amended claims according to new auxiliary requests I and II, in which the term "electronically" had been replaced by "electrically", to replace the previous auxiliary requests.

XV. Claim 1 of auxiliary request I reads as follows:

"A facsimile type electronic mail apparatus comprising: a scanner (6) for scanning a paper document to convert the image of the document into corresponding image data; a compression device (8A) for compressing the image data into compression-resultant image data; a data format converter (5) for converting the compression-resultant image data into an electronic mail format; an operation panel (7F) having an input key for inputting a destination telephone number or a destination address of an electronic mail; an electronic mail transmitter (9A) for transmitting the format-converted image data to the destination address according to an electronic mail protocol via a computer communication network (9B); a fax modem (18) for transmitting the image data to the destination determined by the input telephone number via a telephone network according to a facsimile protocol; a decision device (1) for deciding whether the image data is transmitted via the telephone network according to the facsimile protocol or is transmitted via the computer communication network (9B) according to the electronic mail protocol, based on a result of selection by an operator, characterised in that said operation panel (7F) has a start key to start a

transmitting operation, and that said scanner (6), said compression device (8A), said data format converter (5) and said electronic mail transmitter (9A) are sequentially operated in the order to transmit image data via the network according to the electronic mail protocol when said start key is pushed after an electronic mail transmission is designated by the selection button, and that said scanner (6), said compression device (8A), said a fax modem (18) are sequentially operated in the order to transmit image data via the telephone network according to the facsimile protocol when said start key is pushed after the facsimile transmission is designated by the selection button; wherein said scanner (6), said compression device (8A), said data format converter (15), said operation panel (7F), said electronic mail transmitter, said fax modem (18) and said decision device (1) are electrically interconnected via an internal bus structure."

XVI. Claim 1 of auxiliary request II reads as follows:

"A facsimile type electronic mail apparatus comprising: a scanner (6) for scanning a paper document to convert the image of the document into corresponding image data; a compression device (8A) for compressing the image data into compression-resultant image data; a data format converter (5) for converting the compression-resultant image data into an electronic mail format in conformity with Multipurpose Internet Mail Extensions; an operation panel (7F) having an input key for inputting a destination telephone number or a destination address of an electronic mail; an electronic mail transmitter (9A) for transmitting the

format-converted image data to the destination address according to an electronic mail protocol via a computer communication network (9B); a fax modem (18) for transmitting the image data to the destination determined by the input telephone number via a telephone network according to a facsimile protocol; a decision device (1) for deciding whether the image data is transmitted via the telephone network according to the facsimile protocol or is transmitted via the computer communication network (9B) according to the electronic mail protocol, based on a result of selection by an operator, characterised in that said operation panel (7F) has a start key to start a transmitting operation, and that said scanner (6), said compression device (8A), said data format converter (5) and said electronic mail transmitter (9A) are sequentially operated in the order to transmit image data via the network according to the electronic mail protocol when said start key is pushed after an electronic mail transmission is designated by the selection button, and that said scanner (6), said compression device (8A), said a fax modem (18) are sequentially operated in the order to transmit image data via the telephone network according to the facsimile protocol when said start key is pushed after the facsimile transmission is designated by the selection button; wherein said scanner (6), said compression device (8A), said data format converter (15), said operation panel (7F), said electronic mail transmitter, said fax modem (18) and said decision device (1) are electrically interconnected via an internal bus structure."

XVII. Oral proceedings were held before the board on 27 January 2010, at the start of which the appellant made auxiliary request II filed with the statement of grounds of appeal his auxiliary request III. The respondent objected to the admissibility of auxiliary requests I, II and III.

XVIII. The appellant's arguments in the oral proceedings can be summarized as follows.

Main request

The subject-matter of claim 1 differed from the disclosure of D2 in setting out compressed image data being converted into an email format. In contrast, according to D2 (see figures 4 and 6 and page 11, line 28, to page 12, line 17), the scanned image data was compressed using FAX Group III or Group IV compression algorithms to overcome the "bottleneck" posed by the RS232 interface cable between the scanner and the host. The compressed data was then decompressed by the host. D2 was silent as to how the image was converted into an email.

A further difference between the claimed subject-matter and the disclosure of D2 lay in the sequence of processing steps. According to the patent, the user put a document sheet into the scanner, entered the destination and pressed the "start" key. At the filing date users had been familiar with fax machines, and the invention allowed documents to be sent as either faxes or emails with the same "fax-like experience". The decision device set out in claim 1 was a consequence of

the selection button used to select between the fax and email modes.

At the filing date transmission systems, such as that known from D2, were distributed systems consisting of a host communicating with peripheral devices, rather than being integrated. Although D2 mentioned a "stand-alone" device (see, for instance, page 7, lines 26 to 31), it did not suggest a single machine. Moreover at the filing date fax and PC technology were viewed as being totally unrelated.

Auxiliary request I

Regarding the admissibility of auxiliary request I, the amendments to claims 1 and 3 corrected an obvious error (replacing "electronically" by "electrically") and restricted the claims in response to the ground of opposition of lack of inventive step. The expression "compression-resultant image data" and the features relating to the "internal bus structure" were known from the sentence bridging columns 25 and 26 and figure 24, respectively, of the published application.

On the allowability of auxiliary request I the appellant argued that the features added at the end of claim 1 concerning the internal bus structure allowed image data to be moved around the apparatus more quickly, there being no need for interface cables between parts of the apparatus with corresponding interface software at both ends. This required changes in the data protocols and data formats used, but allowed the apparatus to be more easily manufactured. The references in D2 to a "stand-alone device" did not

imply such an internal bus structure. At the filing date different parts of the apparatus would have been produced by different manufacturers, so that the D2 apparatus would not have been a single integrated device. Moreover D2 did not disclose scanned image data being compressed and transmitted via an internal bus structure. Indeed if the claimed internal bus structure had been obvious at the filing date then why was it not mentioned in D2? At the filing date fax and PC technology were viewed as being totally unrelated.

Auxiliary request II

The arguments in favour of the admissibility of auxiliary request I also applied to auxiliary request II. In addition, the insertion of the expression "in conformity with Multipurpose Internet Mail Extensions" further restricted claims 1 and 3 in response to the ground of opposition of lack of inventive step and was based on column 8, lines 20 to 24, of the published application.

As to the allowability of auxiliary request II, the reference in claim 1 to MIME served to differentiate the claimed data format converter from the disclosure of D2. In D2 there was no conversion of compressed image data into an email format, and an image had to be sent as an attachment file. By using MIME format to send character coded data the claimed apparatus was faster and simpler than that known from D2. Moreover if the use of the MIME standard had been obvious at the filing date then why was it not mentioned in D2? As D5 (see page 644, lines 21 to 23) showed, the key email

standards RFC 821 and 822 had been known since 1982, well before the priority date of D2 in 1992.

Auxiliary request III

The arguments in favour of the admissibility of auxiliary requests I and II also applied to auxiliary request III. Moreover the addition of the expression "seven-bit text-encoded image data, said data format converter (5) adding a header to the seven-bit text-encoded image data to obtain an e-mail format image data" further restricted claims 1 and 3 in response to the ground of opposition of lack of inventive step and was based on column 8, lines 7 to 16, of the published application. Furthermore this request, originally filed as auxiliary request II with the statement of grounds of appeal, had never been abandoned or withdrawn, and no evidence had been produced that the claims were unclear.

Regarding the allowability of auxiliary request III, converting compressed image data into seven-bit text-encoded image data yielded significant technical benefits over the disclosure of D2.

- XIX. The respondent's arguments in the oral proceedings can be summarized as follows.

Main request

D2 taught a scanned document being sent by fax or email at the choice of the user. The claimed subject-matter differed from this disclosure merely in routine details or matters of choice, for example the choice of the

MIME email standard and the order in which the "selection" button and the "start" key had to be pressed. The claims were not directed to automatic operation, since the fax number or email address of a recipient also had to be entered. Moreover claim 1 was not limited to a particular sort of image compression and thus covered the irreversible conversion of grey scale pixel data to black and white data mentioned in D2. Claim 1 was not limited to an integrated apparatus. But even if the board saw a distinction in this respect it should be noted that D2 also referred (see page 7, lines 26 to 28) to the processing means, scanner, detector means and output means all being located in the "same housing".

Auxiliary request I

Regarding the admissibility of auxiliary request I, the respondent argued that the insertion in claims 1 and 3 of the expression "compression-resultant image data" was not occasioned by a ground for opposition and amounted to merely "tidying up". The expression added to claims 1 and 3 "electrically interconnected via an internal bus structure" was *prima facie* unclear, Article 84 EPC 1973, as it used unclear terminology.

As to the allowability of auxiliary request I, the claimed internal bus structure was commonplace at the filing date. Moreover D2 related to PC technology, internal bus structures being usual in PCs.

Auxiliary request II

Turning to the admissibility of auxiliary request II, the expression "in conformity with Multipurpose Internet Mail Extensions" had been found to be unclear, Article 84 EPC 1973, in a related case T 1007/05 concerning a patent deriving from a divisional application of the same grandparent application (see reasons, point 5) by a board having the same composition as the present board. Hence the present board was bound by the *ratio decidendi* of that decision.

Regarding the allowability of auxiliary request II, MIME was the email standard at the filing date of the present patent. D2 did not mention MIME because D2 predated the standardisation of MIME.

Auxiliary request III

As to the admissibility of auxiliary request III, this request was late-filed even if it had been previously discussed. It also contained amendments, for instance the change of a reference symbol from "9A" to "9", which were not occasioned by a ground of opposition.

Regarding the allowability of auxiliary request III, the respondent argued that seven-bit data encoding, i.e. sending data as ASCII text, was part of the MIME standard; see D5, page 653 to 654, in particular the section referring to "Content-Transfer-Encoding".

XX. The parties' final requests were as follows. The appellant requested that the decision under appeal be set aside and that the opposition be rejected as a main

request; alternatively, that the patent be maintained with the claims of one of auxiliary requests I to III, in that order, the auxiliary requests I and II as filed with the letter dated 21 January 2010 and auxiliary request III as filed with the statement of grounds of appeal (as "auxiliary request II"). The respondent requested that the appeal be dismissed.

XXI. At the end of the oral proceedings the board announced its decision.

Reasons for the Decision

1. *Admissibility*

The appeal is admissible.

2. *The invention*

The patent claims are based on the twelfth embodiment (see figures 24 and 25 and column 21, line 54, to column 24, line 19, of the published patent), which is dependent upon the seventh, sixth and first to fourth embodiments. In essence, the twelfth embodiment concerns the transmission of a scanned document either as a fax or as an email, at the user's choice. First the user uses a mode selection button to select the "fax" or "e-mail" mode (figure 25; step S92). In the case of "fax" mode the user then enters information of a destination telephone number before pressing the "start" key (step S93) to activate the document scanner (step S94). The scanned bi-level image data is compressed into a facsimile format (step S95A) and

transmitted using a fax modem (step S95B). In the case of "e-mail" mode the user enters information of a destination email address before pressing the "start" key (step S96) to activate the document scanner (step S97). The scanned bi-level image data is compressed into image data of a facsimile format (step S98A) and converted into the email format (step S98B). The format converter (see column 5, lines 11 to 28, of the patent) successively encodes pieces of the compression-resultant facsimile image data into corresponding seven-bit character code words, thus forming text-encoded image data. The format converter then adds a header of a given format to the text-encoded image data, thereby completing the image data of the email format. The header includes information of the destination, information of a source address, information of the data format and information of the manner of conversion from the image data into the character code words. The format related to the header and the manner of conversion from the image data into the character code words are in conformity with the Internet email standards referred to as MIME (Multipurpose Internet Mail Extensions). The email is then transferred via a LAN controller to an email computer which transmits it to its destination via an email network.

3. *Document D2*

D2 concerns an apparatus for scanning documents and then printing them, storing them or sending them as a fax or email. D2 divides the various sequences of apparatus operating steps into four cases (see page 2, line 25, to page 3, line 34). In case 1 a document is scanned and processed according to a predetermined

function, such as automatic transmission as a fax or email. In case 2 the user selects the desired function before the document is scanned. In case 3 the document contains symbols which are recognizable by the apparatus and indicate the desired function. In case 4 a document is scanned before the user selects the desired function. Although the appealed decision appears to rely on the parts of D2 relating to case 4, in the present appeal proceedings it is common ground between the parties, and the board agrees, that case 2 (in which the user selects the desired function before the document is scanned) may be taken as a starting point for assessing inventive step.

The apparatus known from D2 comprises a paper sensor (see, for instance, figure 1; item 22) for sensing the presence of the document to be scanned; see page 6, lines 26 to 29, and page 9, lines 1 to 5. Cases 1, 2 and 3 are said to be automatic in the sense that, essentially, once scanning has been initiated no further intervention by the user is necessary; see page 2, lines 31 to 32.

D2 discloses several ways for the user to select the apparatus function. One way is to select the function from a screen menu, shown in figure 3. Another way, which is closer to the claimed subject-matter of the opposed patent, is a selector button having multiple associated user-defined scripts; see figure 12 and page 17, line 3, to page 18, line 4. D2 gives an example of a script, namely a sequence of steps to "send this as a FAX"; see page 17, lines 24 to 26. As figure 12 shows, once such a scripted button is pushed (step 182) the document is scanned (step 184),

function-dependent software is loaded (step 188) and the user is prompted for any necessary auxiliary data (step 190), for example the fax number when sending a document as a fax; see page 18, lines 1 to 4.

D2 lists several options for realizing the data link which transfers scanned image data from the scanner to the host computer, such as a serial data cable using RS232 serial data protocol and a local area network. In the former case, as figure 7 shows, the grey level data produced by the scanner are thresholded to yield bi-level (black/white) data having a smaller bandwidth. A "known FAX machine Group III or Group IV compression algorithm" may be used to further compress the bi-level data before they are sent along the cable to the host; see page 12, lines 1 to 2. The compressed data are then decompressed and stored at the host; see page 12, lines 11 to 15. The purpose of such optional compression and decompression is to reduce the transmission time, given the limited bandwidth of such serial links; see page 12, lines 15 to 16, and claims 27 and 29. Decompression may also be necessary in order to display the data; see page 15, lines 3 to 8.

Although figure 1 of D2 shows the apparatus realized as a PC host linked by a data cable to a scanning input device, there are also more integrated embodiments. Page 7, lines 26 to 31, states that a "stand-alone" device may include all of the elements of the invention in the same housing.

D2 is silent as to how the host converts the image data into email format, and, contrary to the appellant's

argument, there is no suggestion of sending an image as an email attachment file.

4. *Document D5*

The reference work D5 gives an overview of email systems before the filing date; see section 7.4 "Electronic mail" from page 643 onwards. In 1982 ARPANET email proposals were published as RFC 821 (transmission protocol) and RFC 822 (message format). By 1996, the year in which the filing date of the present patent and the publication date of D5 lie, these proposals had become *de facto* internet standards; see page 644, lines 21 to 24. In the early days of the internet email had consisted exclusively of text messages written in English and expressed in the character code ASCII. To extend the email system to deal with other alphabets, languages and non-textual messages such as audio and video "Multipurpose Internet Mail Extensions" (MIME) were proposed and later set out in RFC 1521, published in 1993; see page 653, "MIME". MIME continued to use the RFC 822 format, but added five new message headers to add structure to the message body and define encoding rules for non-ASCII messages. One of the new message headers was "Content-Transfer-Encoding" (see page 653, figure 7-44) which indicates how a non-ASCII message, for instance an image, is converted into a format compatible with existing email programs and protocols. There are several conversion schemes, the simplest being to use ASCII text which uses seven bits per character; see page 654, lines 3 to 8. Another of the new message headers was the "content type" field, figure 7-45 giving the initial list of types and subtypes (fifteen

in total) specified in RFC 1521, examples of types/subtypes being "Text/Plain" and "Image/Jpeg". Additional types and subtypes were added later.

In 1984 CCITT drafted its X.400 recommendations. The appellant has cited D5 as stating that X.400 was "an official international standard strongly backed by all the PTTs worldwide, many governments and a substantial part of the computer industry", which would seem to indicate that X.400 was highly successful. However the complete citation from D5 gives a different impression, casting X.400 in a more negative light. D5 (see page 644, lines 28 to 35) states that (the passage relied on by the appellant being indicated in **bold**): "After a decade of competition, email systems based on RFC 822 are widely used, whereas those based on X.400 have disappeared under the horizon. How a system hacked together by a handful of computer science graduate students beat **an official international standard strongly backed by all the PTTs worldwide, many governments, and a substantial part of the computer industry** brings to mind the Biblical story of David and Goliath. The reason for RFC 822's success is not that it is so good, but that X.400 is so poorly designed and so complex that nobody could implement it well. Given a choice between a simple-minded, but working, RFC 822-based email system and a supposedly truly wonderful, but nonworking, X.400 email system, most organizations, chose the former."

5. *The main request*

5.1 *Novelty, Article 54(1,2) EPC 1973*

The board regards the closest prior art as being the "case 2" embodiment in D2 in which the user selects the desired function using a selector button having multiple associated user-defined scripts (including "send this as a FAX") before the document is scanned and the scanned image data is compressed before being sent to the host; see page 3, lines 6 to 13, page 17, line 3, to page 18, line 4, and the sentence bridging pages 11 and 12. It is implicit in D2 that the apparatus comprises a data format converter for converting the image data into email format, although D2 is silent as to its characteristics. It is also implicit that the D2 apparatus comprises an email transmitter, a fax modem and a decision device for deciding which apparatus function the operator has selected. Also the order of steps set out in claim 1 for facsimile and electronic mail transmission are implicit in the "case 2" embodiment of D2, since they follow the generally known steps preceding transmission (see, for instance, figure 12 of D2).

In terms of claim 1, D2 thus discloses (see also point 3 above) a facsimile type electronic mail apparatus (see abstract) comprising: a scanner (figure 1; 14) for scanning a paper document to convert the image of the document into corresponding image data; a compression device for compressing the image data; a data format converter; an operation panel (see page 17, lines 3 to 6) having an input key for inputting a destination telephone number (see page 18, lines 2 to 4)

or a destination address of an electronic mail; an electronic mail transmitter for transmitting the format-converted image data to the destination address according to an electronic mail protocol via a computer communication network; a fax modem for transmitting the image data to the destination determined by the input telephone number via a telephone network according to a facsimile protocol; a decision device for deciding whether the image data is transmitted via the telephone network according to the facsimile protocol or is transmitted via the computer communication network according to the electronic mail protocol, based on a result of selection by an operator (see page 3, line 6). In an electronic mail transmission said scanner (14), said compression device, said data format converter and said electronic mail transmitter are sequentially operated in the order to transmit image data via the network according to the electronic mail protocol. In a facsimile transmission said scanner (14), said compression device and said fax modem are sequentially operated in the order to transmit image data via the telephone network according to the facsimile protocol.

Hence the subject-matter of claim 1 differs from the disclosure of D2 in the following features:

- i. the data format converter converts the compressed image data into an electronic mail format;
- ii. a selection button for designating an electronic mail transmission in addition to designating a facsimile transmission; and
- iii. said operation panel has a start key to start a transmitting operation after an electronic mail transmission or a facsimile transmission has been

designated by the operator using the selection button.

Hence the subject-matter of claim 1 is novel, Article 54(1)(2) EPC 1973.

5.2 *Inventive step, Article 56 EPC 1973*

Difference features "i", "ii" and "iii" set out above relate to different aspects of an apparatus which allows a user to choose between transmitting scanned image data as an electronic mail or as a facsimile transmission. Since the stand-alone device known from D2 already offers this choice to the user (see point 5.1 above), the contributions of the difference features to inventive step may be considered separately in the context of the known apparatus. In each case the objective technical problem is seen as filling in the gaps in the disclosure of D2 to realize the apparatus it discloses.

Regarding difference feature "i", when implementing the data format converter the skilled person would have selected the widely used MIME email standard as a matter of usual design. The appellant has questioned why D2 does not mention MIME, if it was indeed so obvious. However, although D2 was published in 1994, it derives from a first filing in 1992, this being before the MIME format was issued as RFC 1521 (in 1993; see D5, page 653, lines 13 to 14). Thus it seems hardly surprising that D2 does not mention MIME. As stated in the appealed decision (regarding the then first auxiliary request), when sending an email the skilled person would have selected a format which was

understood by a receiving party, the MIME format being very common and therefore an obvious choice at the relevant date in 1996. The skilled person, seeking to send image data in MIME format would have been aware that, according to figure 7-45 on page 655 of D5 (see image content types "Gif" and "Jpeg"), MIME allowed compressed image data to be sent in an email. Consequently the board finds that the skilled person would have chosen a compression algorithm which was suitable for reducing the transmission time from the scanning input device to the host in accordance with the teaching of D2 (see point 3 above) and which could be converted into the MIME format, such as one of these known image content types. In doing so there would have been no need to decompress a compressed image for the purpose of transmitting it via a computer communication network. This is completely unrelated to decompression of the scanned image for other purposes as mentioned in D2, such as for display. Converting the compressed image data produced by the scanning input device in D2 into an electronic mail format thus constituted a matter of usual design. Hence difference feature "i" does not contribute to inventive step.

Regarding difference feature "ii", since D2 discloses a script designated "send this as a FAX" and D2 relates to transmitting documents by fax or email, the board regards the provision of an analogous script of the form "send this as an email" for email transmission selectable using the selection button as an obvious extension of the teaching of D2. Hence difference feature "ii" does not contribute to inventive step either.

As to difference feature "iii", once the function (fax or email) of the apparatus known from D2 has been selected using the selection button (see page 3, lines 6 to 13) the apparatus may automatically initiate scanning (see page 2, lines 31 and 32), for instance by using any suitable paper sensor for detecting the insertion of paper (see page 9, lines 1 to 5). A simple and obvious modification would have been to provide a start key on the operation panel in addition to the selection button, the start key allowing the user to initiate scanning manually if the circumstances so require. Hence difference feature "iii" does not contribute to inventive step either.

Thus the board comes to the same conclusion as the opposition division in its decision, albeit for slightly different reasons, that the subject-matter of claim 1 of the patent as granted does not involve an inventive step, Article 56 EPC 1973, in view of D2 and common general knowledge.

6. *Admissibility of the appellant's auxiliary requests I, II and III*

All three requests relate to amendments to the appellant's case after oral proceedings have been arranged, Article 13(3) RPBA (OJ EPO 2007, 536). Although auxiliary request III was filed with the statement of grounds of appeal (as auxiliary request II), it was subsequently replaced and only reintroduced at the beginning of the oral proceedings.

Editorial amendments aside, claim 1 according to auxiliary request I compared to claim 1 as granted has

been amended by adding the following expression at the end: "wherein said scanner (6), said compression device (8A), said data format converter (15), said operation panel (7F), said electronic mail transmitter, said fax modem (18) and said decision device (1) are electrically interconnected via an internal bus structure." Corresponding amendments have been made to independent claim 3. Compared to auxiliary request I, claim 1 of auxiliary request II has been amended by inserting the expression "in conformity with Multipurpose Internet Mail Extensions", a corresponding amendment having been made to independent claim 3. Compared to the claims as granted, claim 1 according to auxiliary request III has been amended (editorial amendments aside) by replacing the expression "an electronic mail format" by "seven-bit text-encoded image data, said data format converter (5) adding a header to the seven-bit text-encoded image data to obtain an e-mail format image data in conformity with Multipurpose Internet Mail Extensions". Again, corresponding amendments have been made to independent claim 3.

The amendments remain essentially within the legal and factual framework considered in the decision under appeal, at least some of which concerning restricting amendments occasioned by the ground of opposition under Article 100(a) EPC 1973 (inventive step) and the requirements of Article 56 EPC 1973. Furthermore the expression "in conformity with Multipurpose Internet Mail Extensions" was discussed in the appealed decision regarding the then first auxiliary request.

The board considers that Rule 80 EPC does not exclude **additional** amendments, for instance the insertion in claims 1 and 3 according to auxiliary requests I and II of the expression "compression-resultant image data" and the change in claim 1 of auxiliary request III of a reference symbol from "9A" to "9", being made to the claims already amended under Rule 80 EPC at the discretion of the board, particularly if the additional amendments are editorial in nature (see also Guidelines for examination in the European Patent Office D IV 5.3, second paragraph). This was the situation in the present case.

Moreover features relating to an internal bus and the addition of a header to seven-bit text-encoded image data, albeit somewhat differently formulated to the present amendments, were discussed in written proceedings in the related case T 1007/05 (relating to a patent deriving from a divisional application of the same grandparent application) before an identically constituted board of appeal with the same parties. Furthermore the feature "in conformity with Multipurpose Internet Mail Extensions" was not only discussed in the related case T 1007/05 but was also mentioned in that decision; see reasons, point 5. Hence the impact of the amendments according to the present auxiliary requests could be readily assessed by the respondent and the board without adjournment of the oral proceedings. Auxiliary requests I, II and III were consequently admitted into the proceedings, Article 13(1) and (3) RPBA.

7. *Allowability of the appellant's auxiliary request I*

The expression added at the end of claim 1, "wherein said scanner (6), said compression device (8A), said data format converter (15), said operation panel (7F), said electronic mail transmitter, said fax modem (18) and said decision device (1) are electrically interconnected via an internal bus structure", effectively means that the main apparatus elements previously set out in the claim are electrically interconnected via an internal bus structure. Contrary to the appellant's arguments, the board sees no reason to interpret the expression "internal" as effectively setting out an integrated device, there being no mention in the patent description and figures of an integrated apparatus. Instead "internal" is understood to mean "what is connected to the bus" however widely distributed that bus might be and distinguishing the connected elements from devices which are connected via typical input ports, as for instance mentioned in D2 (page 6, lines 3 to 8). The features relating to the "internal bus structure" are technically unrelated to difference features "i"- "iii" set out in connection with the main request above so that, again, their contribution to inventive step must be assessed separately.

The claimed internal bus structure is not known from D2. However internal bus structures were notorious and a matter of common general knowledge at the filing date, particularly in the field of PCs, to which D2 relates. Indeed the scanning input device shown in figure 13 of D2 comprises an internal bus structure linking the CPU to other circuit devices. Such structures were known to

offer increases in data transmission speeds and reductions in design complexity, in particular if all the essential elements were located in the same housing, as suggested in D2, page 7, lines 26 to 31. Beyond these known advantages, the appellant has not argued, let alone produced evidence, that the use of an internal bus structure yields any unexpected advantage in the claimed apparatus. Consequently it would have been obvious for the skilled person filling in the gaps in D2 to realise the apparatus with the claimed internal bus structure as a usual matter of design.

In view of the fact that none of difference features "i" to "iii" nor those relating to the internal bus structure, neither individually nor in combination, involve an inventive step, the subject-matter of claim 1 consequently lacks an inventive step in view of D2 and common general knowledge, Article 56 EPC 1973.

8. *Allowability of the appellant's auxiliary request II*

The respondent has argued that the present board is bound by the *ratio decidendi* of its previous decision T 1007/05 relating to a patent deriving from a divisional application of the same grandparent application, in particular point 5 of the reasons, that claim 1 was unclear, Article 84 EPC 1973, in view of the expression "in conformity with Multipurpose Internet Mail Extensions". The board does not accept the respondent's argument that it is bound by the *ratio decidendi* of that decision because in any case present claim 1 differs from claim 1 in the decision referred to by the respondent. Moreover the board is free to weigh up which objections it considers to be decisive

or procedurally most efficient in arriving at its decision. In the present case the board finds that claim 1 is sufficiently clear for the purposes of assessing inventive step.

As set out above in relation to difference feature "i" regarding the main request, at the filing date the skilled person would have selected the MIME email format as a matter of usual design. Hence the subject-matter of claim 1, which expressly mentions MIME, lacks an inventive step in view of D2 and common general knowledge, Article 56 EPC 1973, for the same reasons as auxiliary request I.

9. *Allowability of the appellant's auxiliary request III*

Again, as set out above in relation to difference feature "i" regarding the main request, at the filing date the skilled person would have selected the MIME email format as a matter of usual design. Moreover, as set out in section 4 above, the simplest scheme under MIME for converting non-ASCII content, such as an image, into a format compatible with RFC 821 and RFC 822 is to use ASCII text which uses seven bits per character and then to add a header; see D5, page 654, lines 3 to 8. Hence the skilled person would have realized the data format converter to convert the compressed image data into seven-bit text-encoded image data and to add a header as matters of usual design to produce MIME format emails.

For these reasons, and those set out in relation to the main request, the subject-matter of claim 1

consequently lacks an inventive step in view of D2 and common general knowledge, Article 56 EPC 1973.

10. *Conclusion*

Since the ground of opposition under Article 100(a) EPC 1973 (inventive step) prejudices the maintenance of the European patent (the appellant's main request) and the subject-matter of claim 1 of the patent amended according to the appellant's auxiliary requests I, II and III does not comply with Article 56 EPC 1973, the decision under appeal cannot be set aside.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

L. Fernández Gómez

F. Edlinger