**Internal distribution code:**

(A) [ - ] Publication in OJ
(B) [ - ] To Chairmen and Members
(C) [ X ] To Chairmen
(D) [ - ] No distribution

# Datasheet for the decision of 7 May 2014

**Case Number:** T 0241/10 - 3.5.04

**Application Number:** 03075061.6

**Publication Number:** 1331560

**IPC:** H04N7/08, G06F13/00, G06F9/06, G06F9/445

**Language of the proceedings:** EN

**Title of invention:**
Program reception/execution apparatus that can commence execution of a machine program having only received the program in part.

**Patent Proprietor:**
Panasonic Corporation

**Opponent:**
Interessengemeinschaft
für Rundfunkschutzrechte e.V. (IGR e.V.)

**Headword:**

**Relevant legal provisions:**
RPBA Art. 12(4)
EPC 1973 Art. 56
EPC Art. 101(3)(b)

**Keyword:**
Admissibility of a document filed with the statement of grounds of appeal (yes)
Inventive step - (no)

**Decisions cited:**

**Catchword:**
The board has no power under Article 12(4) RPBA to hold a document filed with the statement of grounds of appeal inadmissible if the filing of that document was a legitimate reaction to the submission of amended claims by the patent proprietor shortly before the first-instance oral proceedings and the opponent could not have been reasonably expected to present that document in the proceedings before the opposition division (see points 2 to 7).

Europäisches Patentamt
European Patent Office
Office européen des brevets

**Beschwerdekammern**
**Boards of Appeal**
**Chambres de recours**

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

**Case Number: T 0241/10 - 3.5.04**

# D E C I S I O N
# of Technical Board of Appeal 3.5.04
# of 7 May 2014

| | |
|---|---|
| **Appellant:** (Opponent) | Interessengemeinschaft für Rundfunkschutzrechte e.V. (IGR e.V.)<br>Bahnstraße 62<br>40210 Düsseldorf (DE) |
| **Representative:** | Eichstädt, Alfred<br>Maryniok & Eichstädt,<br>Kuhbergstraße 23<br>96317 Kronach (DE) |
| **Respondent:** (Patent Proprietor) | Panasonic Corporation<br>1006, Oaza Kadoma<br>Kadoma-shi<br>Osaka 571-8501 (JP) |
| **Representative:** | South, Nicholas Geoffrey<br>A.A. Thornton & Co.<br>235 High Holborn<br>London WC1V 7LE (GB) |
| **Decision under appeal:** | **Interlocutory decision of the Opposition Division of the European Patent Office posted on 28 December 2009 concerning maintenance of the European Patent No. 1331560 in amended form.** |

**Composition of the Board:**

| | |
|---|---|
| **Chairman** | F. Edlinger |
| **Members:** | M. Paci |
| | T. Karamanli |

## Summary of Facts and Submissions

I. This is an appeal by the opponent against the interlocutory decision of the opposition division concerning maintenance of European patent No. 1 331 560 in amended form.

II. An opposition had been filed on the grounds that the subject-matter of the claims as granted lacked novelty and/or inventive step (Articles 54 and 56 together with Article 100(a) EPC) in view of the following prior-art document:

D3: J. Hedger, "TELESOFTWARE: HOME COMPUTING VIA BROADCAST TELETEXT", IEEE Transactions on Consumer Electronics, Vol. CE-25, No. 3, July 1979, 279-87.

III. In a communication dated 2 June 2009 annexed to the summons to oral proceedings, the opposition division had informed the parties that it regarded the subject-matter of claim 1 of the granted patent as lacking novelty, or at least inventive step, in view of D3.

IV. In a letter dated 13 November 2009, received by fax at the EPO on the same day, the patent proprietor had filed a set of amended claims 1 to 5 and had requested that the patent be maintained on the basis of these claims. A confirmation copy of the letter had been received by post at the EPO on 17 November 2009 and sent by the EPO to the opponent on 19 November 2009.

V. Oral proceedings had been held on 15 December 2009 in the absence of both parties. At the end of the oral proceedings the opposition division's interlocutory decision had been announced.

VI. In the Reasons for the decision, the opposition division held that
- the amended claims met the requirements of Article 123(2) EPC and
- the subject-matter of amended claim 1 was novel over document D3 and involved an inventive step when starting from the closest prior art D3.

VII. In the statement of grounds of appeal, the appellant (opponent) argued that the subject-matter of claim 1 of the patent maintained in amended form by the opposition division did not involve an inventive step in view of D3. Moreover, the appellant also filed documents

D5: EP 0 680 213 A2,
D6: JP 08-006878 A with corresponding English Abstract and computer-generated English translation, and
D7: EP 0 680 185 A2

with the statement of grounds of appeal and argued *inter alia* that the subject-matter of claim 1 lacked novelty, or at least inventive step, in view of D5.

VIII. In a letter of reply dated 26 August 2010, the respondent (patent proprietor) discussed the content of D3 and D5 and provided arguments as to why the claimed subject-matter of claim 1 of the patent as maintained in amended form by the opposition division was novel and involved an inventive step in view of these prior-art documents.

IX. In an official communication under Article 15(1) RPBA (Rules of Procedure of the Boards of Appeal of the EPO, OJ EPO 2007, 536) annexed to the summons to oral proceedings, the board informed the parties that they should be prepared to discuss *inter alia* whether prior-

art document D5 should be admitted into the appeal proceedings in view of Article 12(4) RPBA and, if D5 was admitted, novelty and inventive step in view of this prior art.

X. Oral proceedings were held on 7 May 2014, at the end of which the board's decision was announced. Both parties were represented.

XI. The appellant's final request was that the decision under appeal be set aside and the patent be revoked.

XII. The respondent's final request was that the appeal be dismissed.

XIII. Claim 1 of the set of claims forming the basis for the decision under appeal reads as follows (the amendments compared to claim 1 of the patent as granted are shown in **bold** for added text and as ~~struck-through~~ for deleted text):

"A program reception apparatus including a reception unit for receiving a broadcast wave containing an executable program that has been divided into a plurality of **executable** partial programs, and a separation extraction unit for separating and extracting at least one of the plurality of partial programs from the received broadcast wave, the program reception apparatus comprising:

a storage unit operable to store the extracted partial program including a link instruction ~~to continuously execute~~ **for instructing the continuous execution** from the extracted partial program to another partial program;

a bytecode interpreter operable to execute the **extracted** partial program stored in the storage unit;

a program presence judgment unit operable to judge based on the link instruction included in the **extracted** partial program ~~executed~~ **during execution** by the bytecode interpreter whether said another partial program is stored in the storage unit; and

a control unit operable to control the separation extraction unit to separate and extract said another partial program if the program presence judgment unit judges that said another partial program is not stored in the storage unit, **and operable to control the bytecode interpreter to wait and not to allow an execution of said another partial program until the program presence judgment unit judges that said another partial program extracted by the separation extraction unit is stored in the storage unit."**

XIV. The appellant (opponent) essentially argued as follows on the matters of relevance to the present decision:

*Admissibility of document D5*

Document D5 should be admitted into the appeal proceedings because it was filed with the statement of grounds of appeal in reaction to the filing, shortly before the oral proceedings before the opposition division, of a set of amended claims forming the basis for the decision under appeal and comprising new features taken from the description which were not present in any of the claims of the patent as granted. Moreover, D5 was highly relevant to the subject-matter of amended claim 1, more so than D3.

*Novelty and inventive step in view of D5*

D5 disclosed a program reception apparatus having all the features of the apparatus of claim 1. The only

feature not explicitly disclosed in D5 was the program presence judgment unit operable to judge whether the next executable partial program to be extracted was already stored in the storage unit. This feature, however, was implicit in the disclosure of D5 for the following reasons.

D5 disclosed that when the next executable partial program is requested (via a CHAIN or LINK function) the requested partial program was extracted from the data flow. D5 did not mention that the apparatus first checked whether this partial program was already stored in the apparatus. However, since all the partial programs were continuously repeated in the data flow (see D5, column 2, lines 17 and 18) and the memory had to be large enough to store at least two partial programs in order to perform a link function (see D5, column 14, lines 28 to 34), it was implicit for the skilled person that the apparatus of D5 had to check whether the requested partial program had already been extracted and stored, before attempting to extract it.

Hence the subject-matter of claim 1 lacked novelty in view of D5.

If the presence of a program presence judgment unit was not regarded as implicit in the disclosure of D5, it would at least be obvious for the above reasons.

Therefore the subject-matter of claim 1 also did not involve an inventive step in view of D5.

XV. The respondent's (patent proprietor's) arguments on the matters of relevance to the present decision can be summarised as follows:

*Admissibility of document D5*

The amended claims filed approximately one month before the oral proceedings before the opposition division merely clarified the claims. These amendments did not justify the filing of new prior-art documents by the opponent in reaction thereto. Moreover, D5 was also relevant vis-à-vis the claims of the patent as granted and thus should already have been filed with the notice of opposition.

Hence the board should not admit D5 into the proceedings.

*Novelty and inventive step in view of D5*

The subject-matter of claim 1 was novel because there was no disclosure in D5 of "a program presence judgment unit operable to judge based on the link instruction included in the extracted partial program during execution by the bytecode interpreter whether said another partial program is stored in the storage unit" and of "a control unit operable to control the separation extraction unit to separate and extract said another partial program if the program presence judgment unit judges that said another partial program is not stored in the storage unit".

These features were not implicit in the disclosure of D5 because there was no indication that the next executable partial program (a "code module" in D5) could be extracted and loaded into memory before it was requested. The apparatus of D5 thus automatically extracted the requested partial program without first checking whether it was already stored in memory.

For these reasons, the subject-matter of claim 1 was novel over the disclosure of D5.

There was no suggestion in D5 to extract and store partial programs before they were requested. The appellant's arguments in this respect were thus based on hindsight. Moreover, D5 taught away from storing more than one partial program at a time in the memory of the apparatus: see column 2, lines 52 to 58, stating that the previous partial program was deleted from memory before the next partial program was extracted from the data flow and stored. Finally, there was no incentive for the skilled person to store a partial program before it was requested because the various partial programs were continuously repeated in the data flow (see D5, column 2, lines 17 and 18). In other words, the data flow acted as an external storage for the partial programs. There was thus neither a need nor an incentive to store partial programs in the apparatus in advance of when they were requested.

Hence the subject-matter of claim 1 involved an inventive step in view of D5.

## Reasons for the Decision

1. The appeal is admissible.

*Admissibility of document D5*

2. Pursuant to Article 12(4) RPBA, the board has the power to hold inadmissible facts, evidence or requests which could have been presented or were not admitted in the first-instance proceedings.

3. Document D5 was filed by the appellant for the first time with the statement of grounds of appeal.

The question thus arises whether document D5 should not be admitted into the appeal proceedings, which in turn depends, according to Article 12(4) RPBA, on whether it could have been presented in the proceedings before the opposition division.

4. As can be seen from the course of the proceedings before the opposition division (the relevant parts of which are summarised under points II to VI *supra*), the amended claims on which the decision under appeal is based were sent by the EPO to the opponent with a letter dated 19 November 2009. The opponent thus received the amended claims at the earliest **approximately three weeks** before the date of the oral proceedings (15 December 2009).

The appellant argued that document D5 was found and filed in reaction to the submission of these amended claims and that it could not reasonably have been filed in the proceedings before the opposition division.

The board agrees with the appellant that, if the filing of document D5 was a legitimate reaction to the submission of the amended claims, there was too little time left before the first-instance oral proceedings to carry out an additional search for relevant prior art and to submit reasoned arguments on the basis of the prior art thus found.

It remains, however, to be established whether the filing of document D5 was a legitimate reaction to the submission of the amended claims or whether, with

regard to the granted claims, document D5 could already have been filed with the notice of opposition.

5. The amended claims differed from the claims of the granted patent in that several features taken from the description were added to claim 1 (see point XIII *supra*).

The respondent did not dispute that the additional features were not present in any of the claims of the patent as granted, but argued that these additional features taken from the description merely clarified the subject-matter of claim 1 without substantially changing it and thus they did not justify the filing of document D5 as a reaction thereto.

The board is not convinced by this argument because although the additional features may have rendered claim 1 clearer, they undoubtably also limited its subject-matter. This is further confirmed by the fact that the opposition division reversed its negative provisional view on novelty and inventive step regarding the subject-matter of the granted claims, as set out in its communication annexed to the summons to oral proceedings, after the respondent's filing of the amended claims. Indeed, it can be derived from the comparison of the Reasons for the decision under appeal (see points 18 to 25) with the content of the opposition division's earlier communication that the opposition division's reversal of its position on novelty and inventive step in view of D3 was to a large extent dictated by the presence of these additional features in claim 1. Hence, while there was no reason for the appellant to file further prior-art documents in reaction to the opposition division's earlier communication, the situation, at least for the

opposition division, changed to a decisive degree with the addition of features taken from the description.

For the above reasons, the board regards the filing of document D5 as a legitimate reaction to the submission of the amended claims on which the decision under appeal is based.

6. The respondent also argued that the appellant should already have filed document D5 with the notice of opposition because D5 was also relevant prior art for claim 1 of the granted patent.

The board is not convinced by this argument either. In a notice of opposition, the opponent is under no obligation to make multiple attacks on novelty and/or inventive step against the same claim based on different sets of prior-art documents. On the contrary, it is desirable for the efficiency of the procedure that the opponent concentrates its efforts on the most promising attack for each claim of the granted patent, by starting from the most relevant prior art, i.e. the closest.

In the present case, the opponent (later appellant) based its entire reasoning in the notice of opposition on document D3 and was successful in convincing the opposition division (according to the communication annexed to the summons to oral proceedings) that the subject-matter of claim 1 of the granted patent lacked novelty and/or inventive step in view of this prior art. The opposition division thus regarded document D3 as highly relevant to the subject-matter of claim 1 of the granted patent. It may be speculated that the opponent would have obtained the same result with D5 instead of D3, but that does not mean that document D5

was more relevant than document D3 for claim 1 of the granted patent. Document D5, however, became more relevant than D3 after the patent proprietor had amended claim 1 by adding features taken from the description, which the opponent could not have foreseen.

For the above reasons, the board does not share the respondent's argument that document D5 should already have been filed with the notice of opposition.

7. Thus, in conclusion, the board considers for the above reasons that the filing of document D5 with the statement of grounds of appeal was a legitimate reaction to the submission of amended claims by the respondent shortly before the first-instance oral proceedings, and that the appellant could not have been reasonably expected to present document D5 in the proceedings before the opposition division.

For these reasons, the board had no power under Article 12(4) RPBA to hold document D5 inadmissible, and therefore had to take it into consideration under Article 12(4), (1)(a) and (2) RPBA.

*Novelty in view of document D5*

8. It is common ground between the parties that document D5 discloses the following features of claim 1:

A program reception apparatus including a reception unit for receiving a broadcast wave containing an executable program that has been divided into a plurality of executable partial programs, and a separation extraction unit for separating and extracting at least one of the plurality of partial

programs from the received broadcast wave *(see D5, columns 1 and 2, in particular, column 2, lines 11 to 43)*, the program reception apparatus comprising:

a storage unit operable to store the extracted partial program including a link instruction for instructing the continuous execution from the extracted partial program to another partial program *(see D5, MODULE_LINK function in column 14, lines 28 to 34)*;

a bytecode interpreter operable to execute the extracted partial program stored in the storage unit *(see D5, column 6, lines 23 to 41)*;

[...] and

a control unit operable to control the separation extraction unit to separate and extract said another partial program [...], and operable to control the bytecode interpreter to wait and not to allow an execution of said another partial program until [...] said another partial program extracted by the separation extraction unit is stored in the storage unit (see D5, column 2, line 36, to column 3, line 2, and column 14, lines 15 to 36).

9. The appellant argued that the remaining features of claim 1, in particular the "program presence judgment unit operable to judge based on the link instruction included in the extracted partial program during execution by the bytecode interpreter whether said another partial program is stored in the storage unit", were implicitly disclosed in D5.

The appellant reasoned that since the memory of the apparatus had to be large enough to store at least two partial programs in order to perform a link function as described in column 14, lines 28 to 34, of D5, it was implicit in the disclosure of D5 that partial programs, which were continuously repeated in the data flow,

could be extracted and stored in the apparatus before they were requested. As an automatic consequence, the apparatus had to check whether a requested partial program was already stored in memory before extracting it from the data flow.

10. The board concurs with the appellant that when a MODULE_LINK function is executed, two executable partial programs (called "code modules" in D5) are concurrently stored in memory. Indeed, as explained in column 14, lines 28 to 36, of D5, a MODULE_LINK function "allows for subroutine-like calls from within a module by providing a dynamic link to the new module". The board understands this to mean that when a link instruction is reached during execution of a first partial program, the apparatus starts executing a second partial program as a subroutine and, when completed, returns to the first partial program to resume its execution immediately after the link instruction. Thus, at least when the second partial program is being executed, both the first and second partial programs need to be concurrently stored in a memory of the apparatus.

The board, however, disagrees with the appellant that it implies that partial programs are extracted from the data flow and stored before they are requested. Indeed, there is no indication in D5 that the second partial program called via the MODULE_LINK function is extracted from the data flow before the link instruction is reached during the execution of the first partial program. The fact that the memory of the apparatus of D5 is large enough to store two partial programs does not allow jumping to the conclusion, as the appellant does, that a partial program is extracted from the data flow before it is requested.

For the above reasons, the board considers that the apparatus of D5 does not comprise a program presence judgment unit as defined in claim 1 and that the control unit of claim 1 differs from that of D5 in that it interacts with the program presence judgment unit.

Hence the subject-matter of claim 1 is novel (Article 54(1) EPC 1973) in view of document D5.

*Inventive step in view of document D5*

11. In D5, an application program is divided into several "code modules" (corresponding to the "executable partial programs" of claim 1). These code modules, and a "directory module" identifying them, are continuously repeated in the data flow (see column 2, lines 17 and 18). The "directory module" is the first module to be extracted from the data flow (see column 2, lines 11 to 24 and 36 to 40).

The apparatus of D5 extracts a module from the data flow on request when the module is needed for immediate execution. Besides, as soon as a module has been **entirely** executed, it is deleted in order to free memory space (see D5, column 2, line 36, to column 3, line 2).

In the board's view, the main technical advantage of this way of proceeding, even though it is not mentioned in D5, would have been apparent to the skilled person, i.e. that the memory can be kept small, because it only stores one or two code modules at a time. A smaller memory reduces the cost of the apparatus.

However, it would have been equally apparent to the skilled person that the apparatus of D5 also has the drawback that the execution of an application program may be too slow in certain circumstances, because each module of the application program must be extracted just before being executed. The extraction of a module takes time, all the more so when the requested module is not immediately present in the data flow.

The skilled person would thus have been aware that there was a trade-off between cost (a smaller memory is cheaper than a large one) and speed.

The board considers that the skilled person would have regarded it as a desirable alternative, depending on the circumstances, to put more emphasis on speed and less on cost. It would then have been straightforward for the skilled person to provide the apparatus of D5 with a larger memory and to extract and store all the modules of the application program to be executed (or at least those modules or partial programs which are linked) as soon as they are detected in the data flow. The result would have been a faster execution of the application program. As an automatic consequence, the apparatus would have to check, before executing a module, whether the module has already been extracted from the data flow and stored. If the module has not yet been stored, the bytecode interpreter must wait until the extraction is completed before executing the module. In other words, the modified apparatus of D5 would comprise a "program presence judgment unit" and a control unit as defined in claim 1.

12. The respondent argued that the skilled person would have no incentive in the apparatus of document D5 to

preload the code modules, because the data flow already acts as an external storage.

The board is not convinced by this argument because although it is correct that the data flow acts as an external storage, it would have been clear to the skilled person that this storage was very slow compared to a proper memory. The skilled person would thus have had an incentive to modify the apparatus of D5 in order to increase the execution speed of a program, as explained above.

13. Hence, for the above reasons, the board concludes that the apparatus of claim 1 does not involve an inventive step under Article 56 EPC 1973 in view of document D5.

*Conclusion*

14. Taking into consideration the amendments made by the respondent during the opposition proceedings, the patent and the invention to which it relates do not meet the requirements of Article 56 EPC 1973 and it must therefore be revoked under Article 101(3)(b) EPC.

**Order**

**For these reasons it is decided that:**

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

K. Boelicke F. Edlinger

Decision electronically authenticated