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**Datasheet for the decision  
of 29 September 2015**

**Case Number:** T 1752/10 - 3.5.04

**Application Number:** 00917880.7

**Publication Number:** 1166555

**IPC:** H04N7/16

**Language of the proceedings:** EN

**Title of invention:**

DATA STORAGE MANAGEMENT AND SCHEDULING SYSTEM

**Patent Proprietor:**

TiVo, Inc.

**Opponent:**

Brunner, John Michael Owen & Morris, Claire Louise

**Headword:**

**Relevant legal provisions:**

EPC 1973 Art. 100(a), 56

RPBA Art. 12(4)

**Keyword:**

Inventive step - (no)

Admissibility - first auxiliary request (no)

Admissibility - second and third auxiliary requests (yes)

**Decisions cited:**

G 0007/93, T 0461/05

**Catchword:**



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Case Number: T 1752/10 - 3.5.04

**D E C I S I O N  
of Technical Board of Appeal 3.5.04  
of 29 September 2015**

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**Decision under appeal:**

**Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
14 June 2010 concerning the maintenance of  
European Patent No. 1166555 in amended form.**

**Composition of the Board:**

**Chairman** B. Müller  
**Members:** R. Gerdes  
M. Paci

## **Summary of Facts and Submissions**

I. The present appeal arises from the interlocutory decision of the opposition division concerning the maintenance of European patent No. 1 166 555 in amended form.

II. The opposition division rejected the patent proprietor's main request to maintain the patent as granted because the subject-matter of its claim 1 did not involve an inventive step in view of document

E7: WO 97/50250 A1.

The proprietor's first auxiliary request was not admitted because claim 1 did not prima facie meet the requirements of Article 123(2) EPC. The opposition division rejected the second auxiliary request because its claim 1 contained subject-matter extending beyond the content of the application as filed (Article 123(2) EPC). The subject-matter of the claims according to the third auxiliary request was considered new and inventive. The opposition division also held that the claims of that request complied with the requirements of Articles 83, 84 and 123(2) and (3) EPC.

III. Both parties appealed this decision.

The patent proprietor (appellant I or appellant-proprietor) requested that the opposition be rejected. It also requested, as a precaution, that the patent be maintained in amended form on the basis of claims of first to third auxiliary requests submitted with the statement of grounds.

The opponent (appellant II or appellant-opponent) requested that the patent be revoked in its entirety. It argued that the subject-matter of the claims lacked an inventive step (Article 56 EPC) and that the skilled person would not have been able to put the invention into effect, contrary to Article 83 EPC. It also contested the admissibility of the claims according to the second auxiliary request because they were late-filed.

- IV. In a communication accompanying the summons to oral proceedings, the board set out its preliminary opinion on the case. It indicated that inter alia the admissibility of the first to third auxiliary requests would have to be discussed in the oral proceedings.
- V. In its letter dated 28 August 2015, the appellant-opponent presented new arguments with respect to sufficiency of disclosure. In its letter of reply dated 17 September 2015 the appellant-proprietor objected to this new line of argumentation and requested that it not be admitted.
- VI. Oral proceedings were held on 29 September 2015.

Appellant I (patent proprietor) requested that the decision under appeal be set aside and that the opposition be rejected. Alternatively, appellant I requested that the patent be maintained on the basis of the claims of the first to third auxiliary requests filed with the statement setting out the grounds of appeal.

Appellant II (opponent) requested that the decision under appeal be set aside and that European patent No. 1166555 be revoked in its entirety.

VII. Claim 1 of the main request, i.e. the patent as granted, reads as follows (using the numbering of features indicated in the decision under appeal; see point I.1):

- "(a) A process for scheduling the recording, storing, and deleting of television and Web page program material on a storage medium in a computer environment, comprising the steps of:
- (b) accepting as input a prioritized list of program viewing preferences;
  - (c) comparing said list with the database of program guide objects;
  - (d) generating a schedule of time versus available storage space that is optimal for the viewer's explicit or derived preferred programs;
  - (e) wherein said preferred programs include television broadcast programs and Universal Resource Locators (URLs); and
  - (f) wherein said program guide objects indicate when programs of interest are actually broadcast."

VIII. Claim 1 according to the first auxiliary request differs from claim 1 of the main request by the following additional features, which have been inserted after feature (d) (using the denomination of features of the appellant-opponent's statement of grounds; see point 3.1.1):

"(d1) wherein said schedule generating step comprises the steps of:

(d1-1) providing a space schedule;

(d2) wherein said space schedule tracks all currently recorded programs and the programs that have been scheduled to be recorded in the future;"

IX. Claim 1 according to the second auxiliary request contains the following additional features compared with claim 1 of the main request:

"(d1) wherein said schedule generating step comprises the steps of:

(d1-1) providing a space schedule; and

(d1-2) providing an input schedule;

(d2) wherein said space schedule tracks all currently recorded programs and the programs that have been scheduled to be recorded in the future;

(d3) wherein said input schedule tracks the free and occupied time slots for each input source among a plurality of input sources;"

X. Claim 1 according to the third auxiliary request differs from claim 1 of the second auxiliary request by the following additional feature inserted after feature (d3):

"(d4) wherein the amount of space available at any given moment in time is found by generating the sum of all occupied space or space that will be occupied at that particular time, and subtracting that from the total capacity available to store programs;"

XI. The reasons for the decision under appeal can be summarised as follows:

*Re construction of claim 1*

The term "optimal" in feature (d) should not be interpreted as meaning "best among all", i.e. as implying an absolute optimum, but as indicating that "an optimization must have been carried out, for example by selecting the best of at least two schedules according to any suitable criterion" (see decision under appeal, points 11.1.d and 16.2 of the Reasons).

The term "versus" was interpreted as meaning "under consideration of". It did not mean that a schedule of the amount of space was available at any given moment in time (see decision under appeal, point 11.1.d of the Reasons).

The opposition division also held that process steps (b), (c), (d) and (f) were applied to television broadcast material only, i.e. not to URLs. Indeed, there was no disclosure in the patent that these steps would concern web page program material. Claim 1 specified neither that program preferences would be associated with web page programs, nor that the database of program guide objects would include information about web page programs. As a result, the features of claim 1 (as granted) specified solely "that the recording and deleting schedule also incorporates Web pages in addition to television programs, and that the Web pages are referenced by URLs" (see decision under appeal, point 11.2 of the Reasons).

*Re main request - inventive step*

E7 constituted the closest prior art with respect to the subject-matter of claim 1.

The opposition division found that the process of claim 1 of the main request differed from E7 only by its suitability for scheduling the recording, storing and deleting of web page program material. As a corollary, the preferred programs included URLs.

The opposition division reached the conclusion that it would have been obvious to the skilled person to add to the receiver of E7 a conventional web browser having a cache for recently viewed web pages and thus arrive at the subject-matter of claim 1 of the main request (see decision under appeal, points 11.2 to 11.5 of the Reasons).

*Re auxiliary requests*

The opposition division exercised its discretion not to admit the first auxiliary request, arguing that it was not prima facie allowable since it raised new questions having regard to Article 123(2) EPC (see decision under appeal, point 12 of the Reasons).

The second auxiliary request was found to contravene Article 123(2) EPC.

The additional features of the third auxiliary request pertaining to the input schedule were known from E7. However, the features relating to the space schedule were new and the subject-matter of the independent claims involved an inventive step (see decision under appeal, point 14.2.2 of the Reasons).



XII. The relevant arguments put forward by the appellant-proprietor can essentially be summarised as follows:

*Re construction of claim 1*

The term "optimal" should be construed starting from the technical problem that the invention solved, i.e. how to effectively manage memory demands and record desired programs (see paragraph [0009] of the patent in suit). The optimisation also included a consideration of input source conflicts.

The generation of a schedule of time versus available storage space required a schedule in correlation with available storage space. The available storage space had to be continuously checked.

Web pages were handled in the same way as programs of interest (column 19, line 41 to column 20, line 13). This implied that web sites could also be selected as derived preferred programs.

*Re main request - inventive step*

E7 failed to disclose features (d) and (e) of claim 1. E7 presumed a mass storage device having enough storage space to store all selected programs for a prescribed period before automatic deletion. This meant that the available or remaining storage space was not taken into consideration when generating the space schedule. In contrast, claim 1 required a schedule of time versus available storage space which was optimised in view of possible space and input conflicts.

*Re auxiliary requests*

With respect to the admissibility of the first auxiliary request, the appellant-proprietor argued in its statement of grounds (see section V) that the opposition division's finding that claim 1 of that request raised new questions with respect to Article 123(2) EPC was not correct. E7 disclosed an input schedule and, therefore, the omission of this feature from the claim could not be considered an unallowable intermediate generalisation. It followed from decision T 461/05 that the omission of the input schedule did not raise issues under Article 123(2) EPC.

Claim 1 of the second auxiliary request was a mere combination of claims 1 and 6 of the patent as granted. Claim 1 of the third auxiliary request incorporated in addition the feature of claim 7 of the patent as granted. The claims of the third auxiliary request were identical to those of the third auxiliary request filed in the proceedings before the opposition division, with the exception of one correction.

With respect to the inventive step of the subject-matter of claim 1 of the second auxiliary request, the appellant-proprietor argued that an input schedule was not disclosed in E7. In E7 there was no optimisation taking into account the different input sources. It only disclosed that the user could arbitrate between simultaneous broadcasts. Nor was a conflict situation addressed, which might have led to an automated solution of input conflicts.

The additional feature of claim 1 of the third auxiliary request related to the calculation of the available space at any given moment in time.

XIII. The appellant-opponent essentially relied on the following arguments:

*Re construction of claim 1*

There was no indication of the criterion with respect to which the schedule should be "optimal". The opposition division's interpretation of the term "versus" as "in consideration of" was correct. The appellant-opponent also concurred with the opposition division's interpretation of process steps (b), (c), (d) and (f) as being applied to broadcast program material only and not to web pages. A web page was acquired and stored as a snapshot, which implied that feature (e) only concerned static web pages in contrast to dynamic pages or video on demand.

*Re main request - inventive step*

The appellant-opponent argued that feature (d) was disclosed in E7, page 4, first full paragraph, which referred to a review of the existing program storage schedule, and page 2, penultimate paragraph as well as page 3, penultimate paragraph, which it understood as disclosing that available storage space had to be taken into account prior to recording new material. An automatic deletion was not required by claim 1. As shown in the embodiment of figure 7 of the patent in suit, user input to delete programs was sufficient in case of insufficient storage.

In addition to receiving broadcast programs, E7 disclosed an ISDN connection for interactive multimedia services. According to E7, "all material which matches the user's interest profile" should be automatically

saved (see page 2, second and penultimate paragraphs; page 5, last paragraph; page 7, last paragraph and page 8, first paragraph). It was therefore obvious to also include web pages in the space schedule.

*Re auxiliary requests*

The auxiliary requests were not admissible. The first auxiliary request corresponded to the first auxiliary request that the patent proprietor attempted unsuccessfully to introduce into the opposition proceedings at the oral proceedings. The second auxiliary request was presented for the first time in the appeal proceedings and did not incorporate all the essential features from claims 7 and 35 as originally filed. The calculation of available space was essential for the invention (see letter of 1 March 2011, page 1, second paragraph and page 2, second paragraph). The claims of the third auxiliary request were not identical to the claims of the third auxiliary request forming the basis of the decision under appeal.

With respect to the inventive step of the subject-matter of claim 1 of the second auxiliary request, the appellant-opponent essentially argued that an input schedule was disclosed in E7, page 4, first full paragraph. Even if E7 was understood as not disclosing a space schedule in the sense of claim 1, such a schedule was obvious from E7 and the common general knowledge, because it was necessary for reasons of "ordinary record keeping". The input source conflicts were not resolved as part of the optimisation, but separately presented to the user, so that the user could select between conflicting recordings (see patent as granted, figure 7: 713 and paragraph [0095]).

The calculation of available space according to claim 1 of the third auxiliary request was the most obvious way of performing that evaluation.

### **Reasons for the Decision**

1. The appeals of the appellant-proprietor and the appellant-opponent are admissible.

#### *The invention*

2. The patent in suit relates to a process and apparatus for scheduling the recording, storing and deleting of television programs and web page program material on a storage medium in a computer environment, for example on a user's client device. The scheduling process manages the memory demands of program material that the user selects to record on the client device (explicit viewing preferences) and, additionally, of program material that matches the user's preferences and which is selected automatically for recording, for example based on previously watched programs (derived viewing preferences).

The goal of the scheduling process is to make a limited storage area appear to be much larger, "as there is an ongoing flushing of old programs and addition of new programs". The storage area should give the appearance of being "always 'full' of programming of interest to the viewer".

For that purpose, a "schedule of time versus available storage space" is generated which receives as input a prioritised list of program viewing preferences. The list is compared with a database of program guide

objects which indicates when the programs are broadcast. Schedule conflicts arising because of resource limitations have to be resolved. This is achieved by keeping track of available memory space, i.e. a space schedule is generated. In addition, according to an embodiment of the invention, for the duration of a program broadcast, there must be an input available from which the program may be recorded. Hence, an input schedule may be generated to keep track of available inputs (see patent as granted, paragraphs [0001], [0008] to [0017], [0076], [0087] to [0098] and figure 6).

The patent in suit also proposes to include web page program material in the scheduling process. Snapshots of web pages may be taken and recorded at a predetermined time if designated via their URLs (column 19, line 48 to column 20, line 13).

*Claim construction*

3. The board essentially concurs with the opposition division as regards the construction of claim 1 of the main request. The opposition division focused on the interpretation of feature (d), in particular of the terms "optimal" and "versus". In addition, it analysed the features relating to the scheduling of web page program material and URLs being included in the preferred programs (see point XI above).

The following interpretation is considered to apply equally to the corresponding apparatus-type claim 29 as well as to the independent claims of the auxiliary requests, which have the same or similar wording as far as the pertinent features are concerned.

3.1 Generating a "schedule of time **versus** available storage space" is considered as meaning that the available storage space is taken into account when generating the schedule. This does not imply that the free storage space is "available at any given moment in time", as specified in paragraph [0090] of the patent in suit, but that it can be deduced with a certain error margin and for a certain time span in the future whether there is sufficient space to record a program or not. This interpretation neither requires nor excludes a continuous check of available space as argued by the appellant-proprietor. However, at least when programs are added to the schedule the available storage space is checked.

3.2 A schedule "that is **optimal** for the viewer's explicit or derived preferred programs" need not be the best schedule on an absolute basis. In this respect the board agrees with the opposition division's interpretation that "an optimization must have been carried out, for example by selecting the best of at least two schedules according to any suitable criterion".

However, as to the criterion which is to be optimised, the board agrees with the appellant-proprietor that this criterion should be linked to the technical problem that the invention solves, i.e. how to effectively manage memory demands and record desired programs (see paragraph [0009] of the patent in suit). It is also noted that, according to the embodiment of paragraphs [0092] to [0095] and figure 7, generating an optimal schedule of time versus available storage space may involve queries to the user to shorten expiration times of selected programs (see paragraph [0094]) in order to provide space for a further recording.

Furthermore, it is not necessary for the optimisation to include a consideration of input source conflicts. Such an interpretation has no support in the patent in suit. In addition, it would be contrary to the above-mentioned embodiment of figure 7, wherein input source conflicts are resolved separately (steps 710 to 713) by user intervention and following the resolution of storage space conflicts (see also paragraph [0095]).

- 3.3 Some of the features of claim 1 are applied to broadcast material only and cannot be taken to apply equally to **web page program material**. There is no support in the patent for web page program material to be automatically designated as a program viewing preference, i.e. as a derived preferred program; see feature (b). A comparison with a database of program guide objects indicating when a program of interest is broadcast, as specified in features (c) and (f), makes no sense, because web pages are not broadcast at specific points in time. Hence, the reference to URLs in claim 1 is understood as meaning "that the recording and deleting schedule also incorporates web pages in addition to television programs, and that the web pages are referenced by URLs". The board also considers web page program material to be limited to static web pages of which a snapshot is taken at a predetermined time for the purpose of recording (see column 20, lines 1 to 3 of the patent in suit and decision under appeal, points 11.2 and 11.4 of the Reasons).

*Main request - inventive step*

4. It is common ground that E7 can be considered as the closest prior art with respect to the subject-matter of claim 1.



4.1 E7 discloses a process for scheduling the recording, storing, and deleting of television program material on a storage medium in a computer environment. The scheduling process receives a prioritized list of program viewing preferences, including explicit and derived preferred programs, which it compares with a database of program guide objects indicating when programs of interest are actually broadcast (see page 2, last full paragraph and page 3, last two paragraphs).

E7 also discloses generating a schedule for the viewer's explicit or derived preferred programs (see passages cited above). The schedule of E7 is also "optimal" for the viewers' explicit or derived preferred programs, the reason being that the schedule of E7 is generated by applying rules (page 3, last paragraph) and is reviewed if the user preferences change (page 4, first full paragraph). Hence, the schedule is generated to match the user's preferences and record desired programs. To some extent it also serves to effectively manage memory demands, since it incorporates automatic deletion after a prescribed period of time. However, this schedule is not "a schedule of time versus available storage space". In other words E7 does not disclose taking into account "available storage space" when generating the schedule, see feature (d) of claim 1. Hence, at least some aspects of feature (d) are not disclosed in E7.

In addition, according to E7 preferred programs only include television broadcast programs, i.e. they do not include Universal Resource Locators (URLs) as specified in feature (e). As a consequence, in E7 the scheduling

of recording, storing and deleting according to feature (a) does not include web page program material.

- 4.2 There is no explicit disclosure in the patent in suit of a technical effect provided by the inclusion of URLs in the preferred programs and correspondingly by scheduling the recording, storing and deleting of web page program material. However, the skilled person would have recognised that handling web pages in the same way as television programs achieved the technical effect of providing a more coherent scheduling process for television and Internet content.

The generation of a schedule of time versus available storage space contributes to improving storage space management by taking storage space limitations into account when generating the schedule.

The distinguishing features do not synergistically interact to produce a common technical effect. At best it could be argued that the storage of web pages contributes to filling up the storage space. However, compared with the storage space requirements of a television program, snapshots of web pages (see point 3.3 above) require insignificant space only.

- 4.3 Hence, the technical problem associated with these technical effects can be regarded as being how to improve the scheduling process of E7 in view of storage space limitations and how to provide a coherent scheduling process for content delivered via television broadcasting and the Internet.
- 4.4 The board holds that the above technical problem contains two partial technical problems which may be evaluated separately.

E7 refers to the storage medium's "minimum capacity required", which should be "four hours of DVC video information" with ten to twenty hours preferred; see page 7, first paragraph. This passage provides an indication of storage space limitations. In addition, the board holds that the skilled person would necessarily have been confronted with such limitations when developing and executing the scheduling process. As a consequence, it would have been obvious to take storage space limitations and thus the available storage space into account for the generation of the schedule.

With respect to the second partial technical problem, the board also arrives at the conclusion that, in order to provide a coherent scheduling process for media delivered via television broadcasting and the Internet, the skilled person would have incorporated web page program material into the scheduling process and included URLs into the preferred programs. E7 discloses to "provide interactive multimedia and emulated video-on-demand (VOD) services to residential consumers", to "make use of both DBS and terrestrial data transmission technology, such as ISDN technology to provide a wide range of multimedia services to their customers", which may include "home banking, financial services, electronic mail, reservation services, etc.", and "even short video clips or partial screen full motion displays" (see page 2, second paragraph, page 5, last paragraph, page 7, last paragraph to page 8, first paragraph). Hence, based on E7 and trying to provide a coherent scheduling process for media delivered via broadcast and the Internet, the skilled person would have considered incorporating web page program material into the scheduling process. Furthermore, since web

pages are usually designated via URLs, in an analogous way to television programs being designated via program guide objects, it would have been obvious to use URLs to designate web pages for the preferred programs.

It follows that the subject-matter of claim 1 lacks an inventive step in view of E7 and common general knowledge (Article 56 EPC 1973).

4.5 The arguments brought forward by the appellant-proprietor did not convince the board.

The appellant-proprietor argued that storage space conflicts were normally avoided in E7 by using a storage device having enough space to store all selected programs for a prescribed period before automatic deletion (see E7, page 2, last full paragraph and page 7, first paragraph). Even if it were accepted that most storage space conflicts could potentially be overcome using a huge storage device, E7 also refers to limitations in currently available storage devices and a minimum required storage capacity being equivalent to only four hours of DVC video information (see page 7, first paragraph). The board thus considers it as inevitable under these circumstances to be faced with the necessity of considering storage space management. As set out above (see point 3.2), according to the patent in suit "optimal" generation of a schedule can take different forms, including presenting the user with the option of shortening expiration dates in order to provide sufficient space. User-prompted deletion is also disclosed in E7 by providing the schedule "to the individual to review prior to implementation" (see page 2, last full paragraph and page 4, first full paragraph). In view of the above mentioned restrictions on available storage space, it would have been obvious

to also consider this parameter when providing the schedule for review.

*First auxiliary request - admissibility*

5. The first auxiliary request is identical to the first auxiliary request that the appellant-proprietor filed during oral proceedings before the opposition division once the division had decided that the subject-matter of claim 1 of the main request on file was not inventive. It was not admitted by the opposition division because it was not prima facie allowable, since it raised new questions under Article 123(2) EPC (see points 12 to 12.4 of the decision under appeal).
- 5.1 The appellant-proprietor argued that the opposition division's finding that claim 1 of that request raised new questions with respect to Article 123(2) EPC was not correct. If one alleged that E7 disclosed an input schedule, the first auxiliary request would not represent an unallowable intermediate generalisation. It followed from decision T 461/05 that the omission of the input schedule did not raise issues under Article 123(2) EPC, since this feature was assumed to be disclosed in E7 and hence not necessary for carrying out the invention.
- 5.2 The board is not convinced by this reasoning. It follows from the appellant-proprietor's argumentation that - of a set of features in a certain embodiment - those features distinguishing the claimed subject-matter from the prior art can be isolated to be incorporated into an independent claim. This is not the test for establishing whether an intermediate generalisation is permissible. Instead, T 461/05, point 2 of the Reasons, which relates to that issue,

does not address the disclosure of the prior art. In other words, whether or not an intermediate generalisation is allowable is not related to the disclosure of prior-art documents.

5.3 According to the decision of the Enlarged Board in G 7/93, point 2.6 of the Reasons, a board should only overrule the way in which a first instance department has exercised its discretion if it comes to the conclusion either that the first instance department in its decision has not exercised its discretion in accordance with the right principles, or that it has exercised its discretion in an unreasonable way, and has thus exceeded the proper limits of its discretion. In the light of the foregoing, the board cannot see such reasons for overruling the opposition division's decision on this point.

5.4 Hence, the board decided not to admit the first auxiliary request into the proceedings (Article 12(4) RPBA).

## 6. *Second and third auxiliary requests - admissibility*

6.1 The appellant-opponent requested that the second and third auxiliary requests not be admitted into the proceedings. The second auxiliary request was presented for the first time in the appeal proceedings and did not incorporate all the essential features from claims 7 and 35 as originally filed. The calculation of available space was essential for the invention (see letter of 1 March 2011, page 1, second paragraph and page 2, second paragraph). The claims of the third auxiliary request were not identical to the claims of the third auxiliary request forming the basis of the decision under appeal.

6.2 Claim 1 of the second auxiliary request essentially contains the features of claims 1 and 6 of the patent as granted. The calculation of the available space as specified in dependent claim 7 cannot be considered essential for the invention.

6.3 Claim 1 of the present third auxiliary request is identical to claim 1 of the third auxiliary request submitted in the opposition proceedings, except for the fact that all occurrences of "input time schedule" have been replaced by "input schedule". This amendment is a correction of an obvious mistake, which aligns the wording with that used in the patent in suit.

6.4 Hence, the board decided to admit the second and third auxiliary requests into the proceedings.

7. *Second auxiliary request - inventive step*

7.1 Compared with claim 1 of the main request, claim 1 of the second auxiliary request specifies further details of the schedule generating step. It contains the following additional features:

"(d1) wherein said schedule generating step comprises the steps of:

(d1-1) providing a space schedule; and

(d1-2) providing an input schedule;

(d2) wherein said space schedule tracks all currently recorded programs and the programs that have been scheduled to be recorded in the future;

(d3) wherein said input schedule tracks the free and occupied time slots for each input source among a plurality of input sources;".

- 7.2 E7 discloses a program schedule (see page 2, last full paragraph and page 3, penultimate paragraph to page 4, first full paragraph). In order to delete programs automatically after a prescribed period or by user intervention, the schedule must keep track of all currently recorded programs. Furthermore, "re-creating the schedule for program storage" (see page 4, first full paragraph) if parameters for selecting programs change implicitly requires keeping track of programs that have been scheduled to be recorded in the future. Hence, features (d1-1) and (d2) are disclosed in E7.

Contrary to the appellant-proprietor's arguments, the board holds that E7 also discloses a scheme for the resolution of input conflicts. Review of the schedule generated in E7 "allows to the individual to arbitrate between simultaneous broadcasts", see page 4, first full paragraph. Furthermore, claim 1 does not require the taking into account of the different input sources and the available storage space in the same optimisation (see point 3.2 above).

Details of its input conflict resolution scheme are not disclosed in E7. However, it would have been obvious for the skilled person to track the free and occupied time slots for each input source in order to detect input conflicts. The board agrees with the appellant-opponent that such a scheme is just a matter of "ordinary record keeping" in order to detect these conflicts.



7.3 Hence, the subject-matter of claim 1 according to the second auxiliary request lacks an inventive step (Article 56 EPC 1973).

8. *Third auxiliary request - Inventive step*

8.1 Claim 1 of the third auxiliary request contains the following additional feature compared with claim 1 of the second auxiliary request:

"(d4) wherein the amount of space available at any given moment in time is found by generating the sum of all occupied space or space that will be occupied at that particular time, and subtracting that from the total capacity available to store programs;"

8.2 The appellant-proprietor argued that the additional feature related to the calculation of the available space at any given moment in time. The board cannot follow this argument, for the same reasons as those outlined above at points 3.2 and 7.2. In addition, the calculation of available storage space is considered to be straightforward for the skilled person.

8.3 Hence, the subject-matter of claim 1 is considered to be obvious in view of E7 and the common general knowledge.

**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

B. Müller

Decision electronically authenticated