

## Deckblatt Übersetzung

### Daten der Übersetzung:

Court/Gericht:	Bundesgerichtshof
Date of Decision / Datum der Entscheidung:	2013-04-23
Docket Number / Aktenzeichen:	X ZR 27/12
Name of Decision / Name der Entscheidung:	Fahrzeugnavigationssystem

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**FEDERAL COURT OF JUSTICE**  
**IN THE NAME OF THE PEOPLE**  
**JUDGMENT**

X ZR 27/12

Pronounced on:  
23 April 2013  
Wermes  
Judicial Secretary as  
Clerk of the court  
registry

in the patent nullity proceedings

Fahrzeugnavigationssystem/  
Vehicle navigation system

EPC Art. 52(2) lit. d, Art. 56

The instruction to the skilled person to take into account certain detailed information (here: street names) in the voice output of a navigation instruction under certain conditions concerns the content of the information reproduced optically or acoustically by the navigation system and is not to be taken into account when examining the technical teaching of the patent for inventive step.

Federal Court of Justice, judgment of 23 April 2013 - X ZR 27/12 –  
Federal Patent Court

The X. Civil Senate of the Federal Court of Justice, following the oral hearing on 23 April 2013, attended by the presiding judge Prof. Dr. Meier-Beck, the judge Mühlens and the judges Dr. Grabinski, Hoffmann and Dr. Deichfuß

ruled that:

The appeal against the judgment of the 4. Senate (Nullity Senate) of the Federal Patent Court pronounced on 29 November 2011 is dismissed at the expense of the defendant.

By operation of law

Facts of the case:

- 1 The defendant is the proprietor of European patent 973 011 (patent in suit), which was granted with effect for the Federal Republic of Germany, was applied for on 14 July 1999, claiming the priority of a U.S. patent application of 15 July 1998, and relates to a method and a device for route guidance in a vehicle navigation system. Patent claim 1, to which seventeen further claims are referred back, reads as granted in the language of the proceeding:

"A vehicle navigation system for use in a vehicle, the system comprising:

sensing means for generating data for use by the vehicle navigation system for navigation;

a user interface for communicating with a user of the vehicle navigation system, and

a central processing unit which is operable to:

generate a route from a first position to a destination in response to the selection of the destination by the user, the route including a plurality of manoeuvres;

generate a plurality of manoeuvre instructions corresponding to said plurality of manoeuvres, selected ones of said manoeuvre instructions being associated with a street name having alphanumeric characters and an

indication of a distance to the corresponding manoeuvre;  
present an audio representation of each of the manoeuvre instructions to the user prior to the execution of a corresponding one of the manoeuvres, wherein the audio representation of the selected manoeuvre instructions includes the associated street name and the distance indication;  
include, in response to a request received from a user to repeat a most recently presented manoeuvre instruction that includes a street name and a distance indication, an adjusted distance indication of the distance to the manoeuvre that corresponds to said previously presented manoeuvre instruction;  
generate a repeat manoeuvre instruction comprising said previously presented manoeuvre instruction, said previously presented street name and said adjusted distance indication, and  
present an audio representation of said repeat manoeuvre instruction to said user."

2 As issued, collateral patent claim 19 reads in the language of the proceeding:

"A method for providing route guidance to a user of a vehicle navigation system, the method comprising:

generating a route from a first position to a destination in response to the selection of the destination by the user, the route including a plurality of manoeuvres,

generating a plurality of manoeuvre instructions corresponding to said plurality of manoeuvres, selected ones of said manoeuvre instructions being associated with a street name having alphanumeric characters and an indication of a distance to the corresponding manoeuvre;

presenting an audio representation of each of the manoeuvre instructions to the user prior to the execution of a corresponding one of the manoeuvres, wherein the audio representation of the selected manoeuvre instructions includes the associated street name and the distance indication;

including, in response to a request received from a user to repeat a most recently presented manoeuvre instruction that includes a street name and a distance indication, an adjusted distance indication of the distance to the manoeuvre that corresponds to said previously presented manoeuvre instruction;

generating a repeat manoeuvre instruction comprising said previously presented manoeuvre instruction, said

previously presented street name and said adjusted distance indication, and  
presenting an audio representation of said repeat manoeuvre instruction to said user."

3           The plaintiff challenged the patent in suit on the grounds that its subject matter was not patentable and that it was broadened compared to the relevant application documents. The Patent Court declared the patent in suit null and void. The defendant's appeal is directed against this, in which it continues to seek dismissal of the action and, in the alternative, defends the patent in suit with the auxiliary requests already made at first instance. The plaintiff opposes the appeal.

Grounds of the decision:

4           I.       The patent in suit concerns a method and a device for route guidance in a vehicle navigation system.

5           The patent in suit states at the outset that the usefulness of voice guidance in vehicle navigation systems is beyond question, because it means that the driver is not dependent on eye contact with the display of the navigation system, particularly in dangerous situations in flowing traffic. Although the navigation systems known in the state of the art already provide voice guidance for the user to a certain extent, it is still very difficult to provide the user with voice guidance that describes an upcoming driving maneuver even somewhat precisely. This is due to the complexity and uniqueness of the respective driving situation and the wide range of road topologies. Typically, the vehicle navigation systems known in the state of the art do not include street names or the name of the next exit in the voice guidance. The reason for this is that vehicle navigation systems have so far relied on a library of voice instructions, the scope of which is kept relatively small in order to save memory space and conserve processing resources.

6           Against this background, the patent in suit concerns the technical problem of providing a vehicle navigation system which offers the driver the required information in such a way that his dependence on the visual

reproduction of information is reduced.

7           2.     To solve this problem, patent claim 1 proposes a navigation system, the features of which can be structured as follows (in square brackets the structure of the Patent Court):

1.     The navigation system is for use in a vehicle [M1].
2.     The navigation system comprises:
  - a)     Sensor means for generating data used for navigation [M2],
  - b)     a user interface for communication with the user of the navigation system [M3], and
  - c)     a central processing unit [M4].
3.     The central processing unit can perform (is operable to) the following operations [M4]:
  - a)     Generating a route from a first position to a destination in response to the user's selection of the destination, the route having a plurality of driving maneuvers [M4a],
  - b)     Generating a plurality of driving instructions corresponding to the plurality of driving maneuvers, wherein selected driving instructions [M4b] include
    - aa)    a street name containing alphanumeric characters [M4b-aa], and
    - bb)    a distance to the driving maneuver in question [M4b-bb],
  - c)     Presenting an audio reproduction of each driving instruction before the corresponding driving maneuver is executed, wherein the audio reproduction of the selected driving instructions [M4c, M4c-aa]
    - aa)    the assigned road name [M4c-aa], and
    - bb)    includes the associated distance indication [M4c-bb],
  - d)     Inserting an adjusted indication of the distance to the driving maneuver corresponding to the previously presented driving instruction in response to a received request from the user to repeat the last reproduced driving instruction containing a street name and a distance indication [M4d],
  - e)     Generating a repetition of the driving instruction containing the previously reproduced driving instruction, the previously reproduced road name and the adjusted distance indication [M4e, M4e-aa, M4e-bb],
  - f)     Presenting an audio reproduction of this repeated driving instruction [M4f].

8           II.    The Patent Court has substantiated its decision, as far as relevant

for the appeal, essentially as follows:

9           The subject matter of claim 1 was not patentable because it was not based on inventive step. The skilled person, a professionally experienced graduate engineer in the field of electrical engineering or computer science involved in the development of vehicle navigation systems, was not required to have an inventive step in order to arrive at the subject matter of the patent in suit against the background of US patent specification 5 729 109 (citation K20). The subject matter of the granted patent claim 1 differed from the state of the art known from K20 only in that the audio reproduction of the driving maneuver instructions also contained street names. For the skilled person, however, it was suggested that, in addition to the indication of the distance to the next driving maneuver, the street name should also be reproduced acoustically. He was well aware that the streets, places and intersections stored and displayed in the vehicle navigation system usually had names. It is clear from the US patent specification that the street name is shown visually on a display and used as an indication for the next driving maneuver. Since the task to be solved by the invention consisted of providing the driver with voice guidance when using the vehicle navigation system, in which the driver is less dependent on visual contact with the display, it made sense to acoustically reproduce the street name already displayed visually for the next maneuver together with the distance to the next maneuver. This reduces the driver's dependence on the display of the vehicle navigation system.

10           The subject matter of patent claim 1, as amended by the auxiliary claims already filed at first instance, is also derived in an obvious manner from U.S. patent specification 5 729 109. Furthermore, the subsidiary method claims do not have any inventive content going beyond patent claim 1.

11           III.     This assessment stands up to scrutiny in the appeal proceedings, at least in the result. The Patent Court correctly came to the conclusion that the subject matter of patent claim 1 is not based on inventive step.

12           1.     Insofar as the defendant argued at the oral hearing that feature 3b (in the Patent Court's structure 4b) is to be understood as meaning that the driving instructions described in more detail therein - in contrast to what is known

in the state of the art - are not generated during the journey, but immediately during the (re-)calculation of the route for the entire journey, this cannot be inferred from the patent claim. Feature 3b only states that a plurality of driving instructions is generated. When this happens and in particular that this happens during the calculation of the route immediately for the entire route or a certain part of it, does not specify patent claim 1. Also the description and figure 2 do not speak at least sufficiently clearly for such an interpretation. In figure 2 the step is indicated with the reference sign 206 as "determine series of manoeuvres". From this it cannot be inferred that the series comprises all driving instructions up to the destination, which in the case of a long route would also take up considerable memory space without this effort having any discernible benefit. Rather, the fact that a series of driving instructions is generated can also mean that not only the next, but several of the upcoming driving instructions are generated in order to ensure that these are available to the driver in good time in each case. Other does not result also from the description. However, the description of figure 2 in section 16 states *"The sequence can be all previously presented instructions up to the current vehicle position to the final manoeuvre"*. However, this does not necessarily mean that the position of the vehicle and the last driving instruction on the route are the reference points in the forward and backward view. This description passage also says nothing about the time at which the driving instructions are generated. The same applies to section 17, which states that an instruction is generated for each driving maneuver on the route. This also does not allow any clear conclusions with regard to the time of generation.

- 13           2.       It can remain undecided whether - as the appeal claims - the US patent specification 5 177 685 (citation K8) dating from 1990 is evidence of a prejudice against the acoustic reproduction of street names in the output of driving instructions which first has to be overcome by the skilled person addressed and which still exists at the time of priority. For as far as features 3c to 3f of claim group 3, which alone are not disclosed in document K20 insofar as according to the teaching disclosed there road names are not included in the acoustically reproduced driving instructions for the user of the vehicle navigation system, on the other hand provide that the road names are also audibly presented to the user in the case of certain driving instructions, an inventive step

cannot be justified herewith, because the solution of the technical problem underlying the invention is not determined or even influenced thereby.

14           a)     A navigation method or system implements by technical means the reproduction of information which allows the driver to choose an expedient route to his destination and makes it easier for him to follow the chosen route by providing him with detailed information about the next decision situation at an appropriate time. It does not control the vehicle, but only provides information appropriate for it. According to Art. 52(2) lit. d, (3) EPC, the reproduction of information as such (Art. 52(3) EPC) is just as ineligible for patent protection as it is under Art. 52(2) lit. c EPC for programs for data processing equipment as such. Instructions concerning the information to be reproduced according to the teaching of a patent can therefore support the patentability of the teaching according to the invention also from the point of view of inventive step only if and to the extent that they determine or at least influence the solution of a technical problem by technical means (Federal Court of Justice, order of 24 May 2004 - X ZB 20/03, BGHZ 159, 197, 204, 206 - Elektronischer Zahlungsverkehr; judgment of 26 October 2010 - X ZR 47/07, GRUR 2011, 125 marginal no. 31 - Wiedergabe topografischer Informationen). Therefore, in the latter judgment, the Senate did not consider the selection of a projection of topographic data useful for navigation purposes as part of the technical solution provided by the patent in suit there, but as a specification of a cartographer, geographer or geodesist preceding it (Federal Court of Justice, GRUR 2011, 125 marginal no. 39 - Wiedergabe topografischer Informationen). Similarly, it has ruled in favor of the provision of information on route sections to be avoided, if necessary (Federal Court of Justice, judgment of 18 December 2012 - X ZR 3/12, GRUR 2013, 275 marginal no. 42 - Routenplanung) and the selection of the city center as a route destination automatically made by the navigation system under certain conditions (Federal Court of Justice, judgment of 18 December 2012 - X ZR 121/11, juris marginal no. 29).

15           b)     The reproduction of street names according to the invention in the context of the audio reproductions made available to the user is not to be assessed differently.

16           (1)     Feature group 3 as a whole relates to functionalities which the

central processing unit is capable of performing and which are intended to achieve the reduced dependence of the user on the optical reproduction of information sought by the patent in suit. In this context, the central processing unit according to feature 3b aa is adapted to generate a plurality of driving instructions, with certain instructions being assigned, inter alia, road names. The user of the vehicle navigation system is presented with the street names assigned to certain instructions according to feature 3c aa by way of audio playback, whereby according to features 3d - f, upon a request from the user, the playback of the driving instruction can be repeated including the indication of the street name, and the content of the playback can take into account a further approach of the vehicle to the location of the upcoming driving maneuver. This ensures that the user does not have to look at the display screen even if, for example, he wants to know the name of the street he is about to turn into.

17           (2)     The inclusion of street names in certain audible information given to the driver does not, however, constitute an instruction which determines or even influences the solution of the technical problem by technical means. The instructions contained in the patent claim for the reproduction of road names are limited to the specification that and under which conditions they are to be part of the audio reproduction of driving instructions. They thus relate exclusively to the content of the information made available to the user. The technical means by which the problem of the user's dependence on the visual route guidance is solved, however, consists in the improvement of the acoustic route guidance in such a way that the user can now also hear information which he could previously only see. The content of the information is irrelevant for this solution, at least as long as the audio reproduction does not present special technical difficulties due to this content of the information, which are solved by the technical teaching of the invention.

18           (3)     As far as the appeal argues that the invention enables a quasi intelligent selection of those driving maneuvers for which it is not possible to indicate the road name in addition to the distance information and the information of the driving maneuver to be executed for reasons of a possible excessive demand of the user in the concrete driving situation, this does not lead to a different assessment. Such a selection would also only affect the

content of the audio reproduction. Moreover, a selection in the sense described does not belong to the subject matter of the patent in suit. Whether and according to which aspects, if any, certain driving maneuvers are selected from the totality of the driving maneuvers to be performed on the route in order to include the road name in the voice guidance is not specified in the patent claims.

19           3.     The subject matter of method claim 19 is not to be assessed differently, as the Patent Court correctly pointed out.

20           4.     With regard to the versions of claims 1 and 19 and 17, which the defendant defends with the auxiliary requests filed in the appeal instance, there is also no different assessment in the result. It can therefore be left open, as in the judgment under appeal, whether the auxiliary requests are admissible or, as the plaintiff claims, go beyond the subject matter of the invention as disclosed in the application documents.

21           a)     The additional feature provided under auxiliary request I provides that the user interface comprises an output communication device comprising a screen for the visible reproduction of maneuvering instructions and a loudspeaker for the audible reproduction of audio presentations of maneuvering instructions. In this respect, the Patent Court correctly stated that this feature is also known from publication K20 (there description of figure 1 in column 3, line 8 et seq.).

22           b)     The subject matter of patent claim 1 according to auxiliary request II was also suggested to the skilled person by the state of the art.

23           (1)    The subject matter of auxiliary claim II differs from the subject matter of patent claim 1 and patent claim 19 as granted by the further feature that the audio reproductions of driving instructions contain synthesized road names and pre-recorded instruction components by means of speech synthesis techniques.

24           (2)    In this respect, a technical problem - the generation of maneuver instructions consisting of several instruction elements which can then be reproduced acoustically - is solved by technical means in that the maneuver instructions consist partly of recorded instruction components and partly of road

names created with the aid of speech synthesis techniques which are combined to form a maneuver instruction. This ensures that the synthesized street names do not affect the comprehensibility of the instruction as a whole.

25           Accordingly, a storage medium is required from which the recorded instruction components can be taken, a device which can synthesize street names with the aid of speech synthesis techniques, and finally a device which can relate both elements of the maneuver instructions in such a way that they can be reproduced acoustically for the user.

26           (3)     Insofar as herein lies an extension of the technical teaching of the invention, this is also suggested by the state of the art.

27           The Japanese published application Hei 9-34490 (citation K15) already refers in its introduction to the fact that in navigation devices and methods both the reproduction of a recorded voice and the generation of a synthetic voice and finally the combination of both methods of voice output are known. Section 17 then states that by means of the co-use of voice reproduction and speech synthesis, the method by means of voice reproduction is used for the part with the standardized expression in the synthetic speech and the method by means of speech synthesis is used for the part with the standardized expression, so that the advantages of the two methods can be achieved. This gave the skilled person the suggestion to combine both procedures in order to use the advantages from both procedures. For the skilled person, it was therefore obvious to bring both technical possibilities into a balanced relationship in the audio reproduction of the driving instructions suggested by the explanations in III 2.

28           The fact that the subject matter of the speech synthesis according to the feature added by auxiliary claim II is precisely street names, again concerns only the content of the information made available for the desired more comfortable user guidance by the vehicle navigation system. Therefore, this element of the teaching according to the invention must again be disregarded in the assessment of the inventive step.

29           c)     The subject matter described by auxiliary claim III does not prove

to be patentable either, since it differs from the subject matter of the granted patent claim only insofar as the features included in auxiliary claims I and II are combined in it. 5.

30           5.       With regard to the subject matter of the subclaims, nothing has been claimed or is otherwise apparent for a different assessment of inventive step (Federal Court of Justice, judgment of 29 September 2011 - X ZR 109/08, GRUR 2012, 149 - Sensoranordnung).

31           IV.       The decision on costs is based on Sec. 121(2) Patent Act and Sec. 97(1) Code of Civil Procedure.

Meier-Beck

Mühlens

Grabinski

Hoffmann

Deichfuß

Previous instance:

Federal Patent Court, judgment of 29 November 2011 – 4 Ni 63/09 (EU) –