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**Datasheet for the decision
of 24 February 2023**

Case Number: T 1930/20 - 3.5.05

Application Number: 15898905.3

Publication Number: 3327693

IPC: G08G1/00, G08G1/01, B60W40/04,
G08G1/16

Language of the proceedings: EN

Title of invention:

SCENE EVALUATION DEVICE, TRAVEL SUPPORT DEVICE, AND SCENE
EVALUATION METHOD

Applicant:

Nissan Motor Co., Ltd.

Headword:

Points of intersection/NISSAN

Relevant legal provisions:

EPC Art. 54(1), 54(2)
RPBA 2020 Art. 12(2), 12(4), 12(6)

Keyword:

Novelty - (no)

Amendment to case - request - admissibly raised and maintained
(no) - amendment admitted (no)

Late-filed request - should have been submitted in first-
instance proceedings (yes)



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Case Number: T 1930/20 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 24 February 2023

Appellant: Nissan Motor Co., Ltd.
(Applicant) 2, Takara-cho
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Representative: Grünecker Patent- und Rechtsanwälte
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 10 June 2020
refusing European patent application No.
15898905.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair A. Ritzka
Members: E. Konak
E. Mille

Summary of Facts and Submissions

I. The appeal is against the examining division's decision to refuse the application on the grounds that the subject-matter of claim 1 of none of the requests then on file met the requirements of Article 54(1) and (2) EPC with respect to the following document:

D2: WO 2014/192370 A1

(For language reasons, both the examining division and the appellant referred instead to a late-published family member of D2, EP 3 006 294 A1. The board did the same.)

II. With the statement setting out the grounds of appeal, the appellant filed a main request and auxiliary requests 1 and 2. It requested that the decision be set aside and that a patent be granted on the basis of one of the requests. As an auxiliary measure, it requested oral proceedings.

III. The board summoned the appellant to oral proceedings. In its preliminary opinion pursuant to Article 15(1) RPBA, the board raised objections under Article 54(1) and (2) EPC and informed the appellant that it did not intend to admit auxiliary request 1.

IV. Oral proceedings were held before the board.

V. Claim 1 of the main request reads as follows:

"A scene determination device comprising:
a determination processor (11) configured to, when determining a driving action of a subject vehicle

traveling on a first route, determine a scene which the subject vehicle encounters,
the determination processor (11) being operative to:
calculate the first route on which the subject vehicle is travelling;
extract second routes having points of intersections with the first route on which the subject-vehicle travels;
extract a plurality of events that affect the driving action and which the subject vehicle traveling on a first route encounters in the future, on a basis of relationships between the first route on which the subject vehicle travels and second routes having points of intersections with the first route; and
determine the scene using a relationship between each of the extracted events that affect the driving action and the subject vehicle, wherein
the determination processor (11) is further operative to arrange the extracted plurality of events in an order of encounter with the subject vehicle."

Claim 1 of auxiliary request 1 differs from claim 1 of the main request as follows (with the additions underlined):

"[...]
extract second routes having points of intersections with the first route on which the subject-vehicle travels, from among all routes on which other vehicles can travel;
[...]"

Claim 1 of auxiliary request 2 differs from claim 1 of the main request as follows (with the additions underlined):

"[...], and
a drive planning processor (21) configured to plan the
driving action of the subject vehicle traveling on the
first route using relationships between the events that
affect the driving action determined by the
determination processor (11) and the subject vehicle,
wherein
the determination processor (11) is further operative
to arrange the extracted plurality of events in an
order of encounter with the subject vehicle; and
the drive planning processor (21) determines an action
including progressing and stopping actions for each of
the plurality of events extracted by the determination
processor (11)."

Reasons for the Decision

1. Main request
- 1.1 The appellant contested the finding of the examining division that the subject-matter of claim 1 of the main request lacked novelty over D2 and argued that the following features of claim 1 were new:
 - (1.3) [the determination processor being operative to] extract second routes having points of intersections with the first route on which the subject-vehicle travels
 - (1.6) the determination processor is further operative to arrange the extracted plurality of events in an order of encounter with the subject vehicle
- 1.2 Regarding feature (1.3), the appellant argued that in D2 routes calculated for detected vehicles were taken

into account and that D2 did not disclose selecting all relevant possible routes. In D2, the calculation of the trajectories was based on the extrapolation of measured positions and speeds of detected vehicles unlike in the present invention, which did not require previous detection of other vehicles and did not involve any mathematical extrapolation. In the present invention, vehicles V2 to V4 in Figs. 2A to 2G were not detected vehicles but potential vehicles.

These arguments are not relevant for the wording of feature (1.3), or for the wording of claim 1 in general, which does not state how and for which participants the possible routes of other traffic participants are calculated. Feature (1.3) refers merely to the extraction of so-called "second routes" which have points of intersection with the first route on which the subject-vehicle travels. As the contested decision correctly concluded, this feature is clearly disclosed by D2, [0018], last sentence.

The appellant argued that feature (1.3) was worded broadly on purpose in order to emphasise that not only detected traffic participants, as in D2, but all potential traffic participants were considered. However, the fact that the feature was worded so broadly rather confirms the finding in the contested decision that the calculation of the expected course of of detected vehicles in D2, [0018] is prejudicial to the novelty of feature (1.3). Indeed, as paragraph [0041] of the description of the application also demonstrates ("*The determination processor 11 uses [...] the images captured by the camera 231 to calculate possible routes on which the other vehicle V2 may travel (the same applies to other vehicles V3 and V4).*"), the broad wording chosen by the appellant also

covers the prior art method in D2, in which the calculation takes detected vehicles into account.

1.3 Regarding feature (1.6), the appellant argued that D2, [0055] disclosed calculating arrival and passing times at the crossing position for each of the oncoming vehicles, thus oncoming vehicles were treated one after the other and the order of the other traffic participants was of no relevance. However, the board agrees with the examining division that treating oncoming vehicles one after the other amounts to arranging them in an order of encounter.

1.4 To conclude, the subject-matter of claim 1 of the main request is not new (Article 54(1) and (2) EPC).

2. Auxiliary request 1

2.1 In view of the primary object of the appeal proceedings to review the decision under appeal in a judicial manner, an appellant's appeal case must be directed to the requests on which the decision under appeal was based (Article 12(2) RPBA). Any part of an appellant's appeal case which does not meet this requirement is to be regarded as an amendment, unless the appellant demonstrates that this part was admissibly raised and maintained in the proceedings leading to the decision under appeal. Any such amendment may be admitted only at the discretion of the board. The appellant should provide reasons for submitting the amendments in the appeal proceedings (Article 12(4) RPBA).

2.2 In the present case, the contested decision is not based on any of the requests filed with the statement setting out the grounds of appeal. These requests were not raised and maintained in the examination

proceedings. Therefore, they are amendments in the sense of Article 12(2) and (4) RPBA, which can only be admitted at the discretion of the board.

2.3 Since the main request and auxiliary request 2 differ from the main request and auxiliary request 2 on which the contested decision is based merely in editorial changes, the board admitted them. However, in auxiliary request 1, a new feature from the description was added to claim 1. As for reasons for submitting this amendment in the appeal proceedings, the appellant argued that the examining division's fundamental misinterpretation of feature (1.3) became apparent only after the written decision was received. Since it was not aware of this interpretation at the oral proceedings, it could not have filed this amendment any earlier. These arguments did not convince the board, since the feature analysis of claim 1 of the main request in the annex to the summons to oral proceedings dated 27 November 2019 and in the minutes of the telephone interview carried out on 13 March 2020 also refer to the same passage in D2 for feature (1.3). Therefore, any amendment addressing this matter should have been filed in the examination proceedings (Article 12(6) RPBA).

2.4 Therefore, the board did not admit auxiliary request 1.

3. Auxiliary request 2

3.1 The appellant contested that the following feature of claim 1 of auxiliary request 2 was disclosed by D2:

the drive planning processor (21) determines an action including progressing and stopping actions for each of

the plurality of events extracted by the determination processor (11).

- 3.2 It argued that in the passages of D2 cited in the contested decision (paragraphs [0019] to [0023] and [0064]ff., Figs. 6 and 8), after comparing arrival times of the subject-vehicle and the oncoming vehicles or pedestrians, a single action was determined in the form of the selection of a common acceleration pattern (D2, Fig. 8, S37), whereas according to the disputed feature of claim 1 of auxiliary request 2 an individual driving action, associated with stopping or progressing, was determined for each event, as shown in the example in Fig. 8 of the application.

The board was not convinced by the appellant's arguments. As the examining division correctly argued in the contested decision, the flow charts in D2, Figs. 6 and 8 calculate "an action including progressing and stopping actions", involving accelerations and time delays, for each of the encountered vehicles or pedestrians. In view of the wording of the disputed feature, there is no error in the finding of the contested decision that D2 discloses this feature.

- 3.3 Therefore, the subject-matter of claim 1 of auxiliary request 2 is not new (Article 54(1) and (2) EPC).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



K. Götz-Wein

A. Ritzka

Decision electronically authenticated