Internal distribution code:

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

Datasheet for the decision of 6 November 2023

Case Number: T 1093/22 - 3.2.07

Application Number: 14719213.2

Publication Number: 2969856

IPC: B65G1/04

Language of the proceedings: EN

Title of invention:
AUTOMATED STORAGE AND RETRIEVAL SYSTEM WITH INTEGRAL SECURED PERSONNEL ACCESS ZONES AND REMOTE ROVER SHUTDOWN

Applicant:
Symbotic LLC

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (yes)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 1093/22 - 3.2.07

D E C I S I O N
of Technical Board of Appeal 3.2.07
of 6 November 2023

Appellant: (Applicant)	Symbotic LLC 200 Research Drive Wilmington, MA 01887-4442 (US)
Representative:	Ipside 7-9 Allées Haussmann 33300 Bordeaux Cedex (FR)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 6 December 2021 refusing European patent application No. 14719213.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	G. Patton
Members:	A. Cano Palmero
	E. Mille

Summary of Facts and Submissions

I. The appellant (applicant) lodged within the prescribed time limit and in the prescribed form an appeal against the decision of the examining division refusing European patent application no. 14 719 213.2.

II. In its decision, the examining division held that claim 1 of the then main request did not fulfil the requirements of Article 56 EPC.

III. Oral proceedings before the board were held on 6 November 2023.

At the conclusion of the proceedings the decision was announced. Further details of the oral proceedings can be found in the minutes.

IV. The appellant's final requests are as follows:

that the decision under appeal be set aside,
and
that a patent be granted on the basis of the set of claims according to the main request filed during the oral proceedings before the board,
or, in the alternative,
that a patent be granted on the basis of the set of claims according to any of auxiliary requests 1 and 2 filed with the statement setting out the grounds of appeal.

V. The lines of argument of the appellant are dealt with in detail in the reasons for the decision.

VI. Independent claim 1 of the main request reads as follows:

"A transportation system (10) comprising:

a transportation space (12) including destinations distributed in the transportation space (12);

multiple independent automated vehicles (40) configured for free roving through the transportation space (12) to and between the destinations so that the vehicles (40) are dynamically distributed through the transportation space (12); and

a control system (14) communicably connected via a remote communication link (200) to each of the vehicles (40) and having a system controller (20) that addresses each vehicle (40) to different destinations; the transportation system being characterized in that

the control system (14) includes a vehicle accountant controller (22) separate and distinct from the system controller (20), the vehicle accountant controller (22) being connected via the remote communication link (200) to each of the multiple independent automated vehicles (40) and the vehicle accountant controller (22) is configured to independently register a dynamic location of at least one of the vehicles (40), selected from the multiple independent automated vehicles (40) in the transportation space (12), and command shutdown, via the remote communication link, to only the selected at least one vehicle (40) at the registered location if the registered location corresponds to a predetermined location."

VII. Since the present decision is taken on the basis of the main request, there is no need to reproduce claims 1 of the auxiliary requests.

Reasons for the Decision

1. *Main request - Amendments, Article 123(2) EPC*

1.1 Claim 1 of the main request substantially corresponds to claim 1 as originally filed with the following additional features (emphasis by the board):

"... the control system (14) includes a vehicle accountant controller (22) separate and distinct from the system controller (20), the vehicle accountant controller (22) being ***connected via the remote communication link (200) to each of the multiple independent automated vehicles (40) and the vehicle accountant controller (22) is*** *configured to independently register a dynamic location of at least one of the vehicles (40) selected from the multiple* ***independent automated*** *vehicles (40) in the transportation space (12), and command shutdown, via the remote communication link, to only the selected at least one vehicle (40) at the registered location if the registered location corresponds to a predetermined location."*

1.2 The board agrees with the appellant's written and oral submissions that the orignal description, paragraphs [0022] and [0025], provides a basis for the amendments carried out in independent claim 1, and no new objections are triggered by these amendments.

1.3 Dependent claims 2 to 12 of the main request substantially correspond to originally filed claims 2, 3, 29, and 4 to 11 respectively. Dependent claim 13 results from the combination of originally filed claims 12 and 13 and dependent claims 14 and 15 correspond to orignal claims 15 and 14 respectively.

1.4 The subject-matter of the claims of the main request therefore meets the requirements of Article 123(2) EPC.

2. *Main request - Inventive step, Article 56 EPC*

2.1 The examining division found that the subject-matter of claim 1 of the then main request (filed on 15 October 2021) differed from the known transportation system of D1 (**US 2012/185080 A1**) in that the control system of claim 1 includes a vehicle accountant controller separate and distinct from the system controller, leading to the following distinguishing features:

"... a vehicle accountant controller (22) separate and distinct from the system controller (20),
the vehicle accountant controller (22) being connected via the remote communication link (200) to each of the multiple independent automated vehicles (40) and
the vehicle accountant controller (22) is configured to independently register a dynamic location of each of at least one of the vehicles (40),
selected from the multiple independent automated vehicles (40) in the transportation space (12), and command shutdown, via the remote communication link, to only the selected at least one vehicle (40) at the registered location if the registered location corresponds to a predetermined location" (decision under appeal, point II.2, page 3).

2.2 The board concurs with the view of the examining division with respect to the main request which was subject to the decision under appeal, and is further of the view that D1 equally does not anticipate the characterising portion of claim 1 of the present main request, even if the wording "each of" has been cancelled in the feature

"...the vehicle accountant controller (22) is configured to independently register a dynamic location of ~~each of~~ at least one of the vehicles,...".

2.3 The examining division found that the separation of safety critical (via the vehicle accountant controller) and non-safety (via the system controller) critical processes in order to solve the problem of increasing the safety of industrial systems was a *"commonplace design measure"*. In this sense, D3 (**US 2002/126620 A1**) taught, by way of example, a *"similar industrial control system comprising safety critical and non-safety critical processes controlled by separated controllers 14, 16 sharing the same remote communication link 12, see paragraphs [0050]-[0052] and figure 1"* (see point II.2, page 4 of the decision under appeal).

2.3.1 Starting from D1 as closest prior art and in view of the problem to improve safety of the system, it would be obvious for the skilled person not only to use separate controllers for the safety and non-safety critical processes, but also to enable the safety critical controller to independently register the dynamic location of the vehicles, thereby arriving at the subject-matter of claim 1 of the main request without exercising inventive skills.

2.4 The board is not convinced by these findings.

2.4.1 In the first place, the statement of the examining division that the separation of processes in the present technical field is a "*commonplace design measure*" is in the opinion of the board an unsubstantiated allegation. The board rather sees this concept as extending beyond the common general knowledge of the skilled person.

2.4.2 The board is also not persuaded that, the skilled person, starting from D1 as closest prior art, would consider the teaching of D3 at all. As correctly pointed out by the appellant, D3 deals with a bus-based and static system that is *prima facie* incompatible with the control of the dynamic transportation system of D1.

2.4.3 Furthermore, even if, starting from D1 and in view of the technical problem of increasing safety of the system, the concept of separating the safety and non-safety controllers could be considered disclosed in or suggested by the teaching of D3, the board is still convinced that there is no obvious need for the safety critical controller to independently register the dynamic location of at least one of the vehicles, nor is this feature suggested by the teaching of either D1 or D3.

2.4.4 In addition, the board concurs with the appellant that neither D1 nor D3 discloses a separate and distinct "vehicle accountant controller" in accordance with claim 1.

In particular, although paragraph [0043] of **D1** describes that "the control server may effect a

shutting down of the bots 110 within the maintenance access zone" (see point 4.IV of the reasons for the decision under appeal), the board concurs with the appellant that this does not necessarily imply that a **dynamic** location of at least one of the vehicles is required for this, let alone that the registering of such information is actually performed as required in claim 1.

Regarding D3, the appellant correctly puts forward that there is absolutely no need for, nor is there any hint of independently registering an account of a destination state, since the state of the destinations in D3 does not change.

2.4.5 It follows that even under a forced combination of the teachings of D1 and D3, the skilled person would still not arrive at the subject-matter of claim 1 of the main request without exercising inventive skill.

2.5 In sum, the board concludes that the appellant has convincingly demonstrated the incorrectness of the decision under appeal. These findings apply equally to the present main request.

3. *Conclusion*

3.1 In view of the above findings, the main request is consequently considered to meet the requirements of the EPC including those of inventive step. No other objections were raised by the examining division, nor are any obvious to the board. Hence, the decision under appeal is set aside and the appellant's main request is allowed.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the examining division with the order to grant a patent based on the following claims and a description and drawings to be adapted thereto:

Claims:

No. 1 to 15 of the main request submitted during the oral proceedings on 6 November 2023

The Registrar: The Chairman:

G. Nachtigall G. Patton

Decision electronically authenticated