Internal distribution code:

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

Datasheet for the decision of 4 November 2025

Case Number: T 0754/22 - 3.5.01

Application Number: 13738375.8

Publication Number: 2805290

IPC: G06Q10/08, G06Q10/06, G06Q10/10, G06Q50/28

Language of the proceedings: EN

Title of invention:
TERMINAL RESOURCES AND TRAFFIC FLOW MANAGEMENT

Applicant:
Ben-Alexander, Eran
Porat, Lilia
Aboudy, Efraim

Headword:
Allocating time-slots to trucks/BEN-ALEXANDER

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (no) - mixture of technical and non-technical features - common general knowledge - obvious solution

Decisions cited:
G 0001/19, T 0641/00

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

Case Number: T 0754/22 - 3.5.01

D E C I S I O N
of Technical Board of Appeal 3.5.01
of 4 November 2025

Appellant: (Applicant 1)	Ben-Alexander, Eran 50 Aluf David Street Ramat-Gan 5223212 (IL)
Appellant: (Applicant 2)	Porat, Lilia 20 Moshe Lehrer Street Nes Ziona 7404998 (IL)
Appellant: (Applicant 3)	Aboudy, Efraim 111A Krinitzi Street Ramat-Gan 5241420 (IL)
Representative:	Harrison IP Limited Mereside, Alderley Park Congleton Road Nether Alderley Macclesfield, Cheshire SK10 4TG (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 22 November 2021 refusing European patent application No. 13738375.8 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	M. Höhn
Members:	R. Moser
	D. Rogers

Summary of Facts and Submissions

I. The case concerns the applicant's appeal against the decision of the examining division to refuse the European patent application No. 13 738 375.8.

II. The examining division concluded that claims 1 to 15, filed during oral proceedings on 6 October 2021, were not inventive over D5 (US 2009/021347 A1).

In essence, they considered that the distinguishing features did not contribute to the technical character of the invention as they related to an administrative/ business method, which was excluded from patentability under Article 52(2) and (3) EPC (see decision, points 1.4 to 1.6).

III. In the statement setting out the grounds of appeal, filed on 20 March 2022, the appellant requested that the decision be set aside and a patent be granted on the basis of the refused request.

The appellant argued that in light of G 0001/19 (OJ EPO 2021, 77), contrary to the examining division's point of view, the distinguishing features provided a technical effect.

IV. In a communication dated 22 December 2023, the Board expressed its preliminary opinion that, applying the COMVIK approach (T 641/00, OJ EPO 2003,352) and in line with G 0001/19, claim 1 did not appear to be inventive over D5 and the skilled person's common general knowledge. It therefore tended to uphold the decision.

V. In a reply to the Board's communication dated 21 April 2024, the appellant commented on the Board's preliminary opinion and requested, as an auxiliary measure, that "a reasoned, and therefore discussable, explanation as to why the Board believes that claims 1-15 are not patentable in light of G 1/19" be provided (first auxiliary request), or a referral of the appeal to the Enlarged Board of Appeal (second auxiliary request).

VI. In a communication accompanying the summons to oral proceedings, the Board maintained its preliminary opinion and explained why it was consistent with the approach taken in COMVIK and in line with the decision G 0001/19. Furthermore, the Board did not consider it necessary to refer the case to the Enlarged Board of Appeal.

VII. In a letter dated 10 October 2025, the appellant stated that they would not attend the oral proceedings. They requested that the oral proceedings be cancelled and a decision be issued based on the file.

VIII. Oral proceedings took place by videoconference on 4 November 2025, at which the appellant, as announced, did not appear. By deciding not to attend the oral proceedings, the duly summoned appellant has to be treated as relying only on its written case. The final requests are thus those filed in writing - see above points III. and V. At the end of the oral proceedings, the chairman announced the decision.

IX. Claim 1 of the sole request reads (feature labelling by the Board):

A method of traffic flow management at a terminal,

comprising:

F1 *establishing a remotely-accessible computer-implemented reservation system comprising a computer-implemented database of time-slots for servicing trucks at the terminal, each of said time-slots being not more than about 30 minutes long, said remotely-accessible reservation system being remotely-accessible to trucking operators wishing to reserve a said time-slot for a truck to be serviced at said terminal, and also remotely accessible to truck drivers to receive communications about a reserved time-slot;*

F2 *populating an available time-slot portion of said database with a plurality of time-slots available for servicing trucks at said terminal, based on at least one criterion of said terminal;*

F3 *reserving at least one of said plurality of time-slots for servicing of a specific truck at said terminal, by removing said at least one of said plurality of time-slots from said available time-slot portion and by moving said at least one of said plurality of time-slots to an unavailable time-slot portion of said database; and*

F4 *in said database, associating with said at least one of said plurality of time slots information related to said specific truck and a service to be performed on said specific truck,*

F5 *said reservation system and database accessible to a terminal operator to allocate terminal resources to servicing vessels at said terminal, and configured so that said allocating of terminal resources to service vessels renders time-slots unavailable for servicing*

trucks;

the method further comprising:

F6 *updating a user in communication with said specific truck of a change in said reserved at least one time-slot as information regarding said change becomes available; and*

F7 *a user in communication with said specific truck notifying said database of a delay in arrival of said specific truck at said terminal, in real-time;*

F8 *wherein trucks enter said terminal through a lane associated with a truck-identifier device and a moveable physical barrier having two states:*

F9 *an open state allowing passage of a truck therethrough and a closed state preventing passage of a truck therethrough, said truck-identifier device functionally associated with a terminal control center of said terminal, said terminal control center comprising a terminal control system and said computer-implemented reservation system and configured to provide said terminal control system with the identity of a leading truck in said lane, and further comprising:*

F10 *said truck-identifier device identifying a truck in said lane at a position behind said barrier just before an entrance to said terminal and providing said identity to said terminal control system;*

F11 *determining that there is no discrepancy between said identified truck and a specific truck scheduled to enter said terminal through said lane according to said*

reservation system and said terminal control system opening said physical barrier, allowing said identified truck to enter said terminal.

X. The appellant's arguments are discussed in detail in the reasons for the decision.

Reasons for the Decision

1. *The invention*

1.1 The invention relates to managing the traffic flow at a shipping terminal where containers are transferred between vessels and trucks.

Typically, trucks arriving at the terminal are serviced on a "first come, first-served" or "first in, first out" (FIFO) basis resulting in inefficiencies, delays and causing pollution (see page 7, lines 6 to 18 of the A1 publication).

1.2 The core idea of the invention is to allocate specific time-slots to trucks, ensuring that each truck aligns its arrival at the terminal with its assigned time slot (page 14, lines 1 to 15).

A terminal operator manually allocates resources and corresponding time-slots to service vessels and trucks. This information is entered into a reservation system's database (page 15, lines 1 to 27). As illustrated in Figures 3A to 3D, a truck operator can access the system remotely, reserve a time-slot for truck service, and enter various details such as the truck's license number.

1.3 The system incorporates dynamic rescheduling: In the event of schedule disruptions, warning messages are dispatched to truck drivers affected by the changes (page 22, lines 27 to 31). Conversely, if a truck driver experiences delays, he can communicate this to the reservation system, which then provides a new time-slot (page 25, lines 14 to 20).

1.4 The reservation system timely alerts the truck driver to proceed to the designated lane at the terminal entrance, which is obstructed by a barrier. When the truck reaches its turn, a "truck-identifier device" scans the license plate ("identity" in claim 1) and transmits the information to a terminal control system. This system then verifies the match with the reservation, and if successful, the barrier is opened (page 39, line 9 to page 40, line 5).

2. *Claim 1 of the sole request - inventive step*

2.1 The Board judges that claim 1 of the sole request on file is not inventive over D5 and the skilled person's common general knowledge (Article 56 EPC).

2.1.1 As illustrated in Figure 1, D5 discloses a gate monitoring and actuating system 100 ("terminal control center") for managing traffic flow at a terminal (see paragraph [0029]). A communicator 105 ("truck-identifier device") associated with the gate monitoring system identifies a truck 125 when approaching a barrier 120 which has an open and closed state (paragraph [0074]). The identification data is transmitted to a processing station 110 ("terminal control system") (paragraph [0079]). The processing station uses this data and truck related, including scheduling information retrieved from a data source 170

("remotely accessible computer-implemented system comprising a computer-implemented database") for checking any discrepancy in this data and opens the barrier accordingly, thus allowing the truck to enter the site (paragraphs [0034] and [0035], [0050], [0083] to [0088]).

D5, therefore, discloses features F8 to F10 and F11, except that in the last feature a discrepancy is detected between the identified truck and a specific truck scheduled to enter the terminal according to the reservation system.

2.1.2 It differs from claim 1 in features F1 to F7 and in the data used for the discrepancy check in feature F11.

As explained in the following, the distinguishing features boil down to a scheduling method, i.e. a non-technical activity scheduling trucks into specific time-slots to avoid too many trucks showing up at once.

These activities include: providing time-slots available for servicing trucks at the terminal, based on certain criteria (F2); a trucking operator reserving a time-slot, not more than 30 minutes long, for a specific truck and service (F1, F3); moving the reserved slot from an "available" list to an "unavailable" list (F3); associating the reserved slot with information about the truck and the service to be performed (F4); a terminal operator allocating resources to service vessels, which causes certain time-slots to become unavailable (F5); notifying a truck driver of any changes to the reservation (F6); allowing a truck driver to report delays in real-time (F7); and allowing a truck to enter the terminal when

it arrives at the reserved time-slot (F11).

2.1.3 Essentially, the distinguishing features define a method that allows a terminal operator to set available time-slots for servicing trucks, enables a truck operator to book a time-slot, and by which the parties involved can communicate changes to the schedule.

Choosing and setting up a scheduling method generally does not require any technical insight. For example, appointments at a doctor's office, repair shop, or hair salon typically follow a bookable time-slot model rather than a walk-in basis. In practice, it is usually the shop owner or manager who defines the scheduling rules, such as how far in advance customers may book, the duration of time-slots, or whether appointments are required at all. These are administrative decisions which do not require technical skill or address a technical problem. Technical aspects become relevant only in the implementation of such a scheme.

2.1.4 Applying the COMVIK approach, the above scheduling method may legitimately appear in the formulation of the problem as part of the framework of the technical problem that is to be solved, in particular as a constraint that has to be met.

Accordingly, the technical problem may be formulated as how to extend the gate monitoring system of D5 so as to support reservations in line with the given scheduling method and to control barrier opening based on these reservations.

The Board judges that the skilled person, having ordinary programming skills and computer knowledge, would have no difficulty in extending the system of D5

accordingly. An obvious way to do so would be to implement a corresponding reservation system as one of the data sources 170 which are used for providing a variety of data to the processing station, including "information associated with planned arrival and departure times for vehicles", which "may be received from an appropriate logistics and traffic management system of a carrier, a transportation company, and/or from a client associated with the commercial or industrial site" (see paragraphs [0034] and [0035]). It would be equally obvious to check at the processing station 110 the validity of a reservation and open the barrier accordingly. This holds particularly true given the fact that the claim lacks any technical details regarding the specific implementation of the reservation system.

The Board thus judges that claim 1 lacks inventive step over D5 in combination with the skilled person's common general knowledge.

2.2 The appellant argued that the claimed reservation system generated an output signal to physically open a barrier which was a technical solution to the problem of "reduc[ing] the time trucks wait in the FIFO queue of a terminal without adversely affecting the needs of the ships". In the appellant's view, this resulted in further technical effects such as improved usage of the terminal's resources or reduced carbon emissions (see statement of grounds of appeal, first half of page 5).

First, the Board notes that not the reservation system, but the control system using data from the reservation system opens the barrier. This is also the case in D5 (see paragraph [0050]).

Second, while scheduling through bookable time-slots may indeed be more efficient, i.e. resulting in a reduced waiting time or improved resource management, than other approaches - such as a "first come, first served" system (FIFO queue) - this is an inherent property of the scheduling method itself and as such cannot be considered a technical effect. Other possible effects or benefits such as improved working conditions for truck drivers or reduced carbon emissions are, if at all, a direct and inevitable consequence of the scheduling method and therefore mere bonus effects. Such effects, even if they were considered technical, do not confer technical character upon the scheduling method and, therefore, cannot support an inventive step.

2.3 The appellant further argued that, although D5 disclosed a system designed to open a barrier, it did not eliminate the necessity for a FIFO queue. Given that the features concerning the reservation system made a technical contribution, they had to be taken into account for assessing inventive step.

The Board notes that neither the invention nor document D5 appears to require the use of a specific scheduling method based on technical considerations. As previously stated, the choice between scheduling via bookable time-slots or using a walk-in approach is a non-technical one. While this choice may affect the technical implementation - for instance, the use of bookable time-slots necessitates a reservation system - this is a consequence of this choice, not its justification.

Moreover, the use of reservation data to determine the state of the barrier neither modifies its technical

functioning nor inherently contributes to the technical character of the invention. Otherwise, the mere use of any type of business data to control a known device would suffice to establish an inventive step. For example, using payment data to determine the state of the barrier would clearly not be regarded as a technical contribution.

2.4 In their reply, the appellant argued that the examining division did not refuse the application based on an "obviousness-type rejection", but solely on the grounds that the distinguishing features were non-technical and therefore excluded from patentability under Article 52(2) and (3) EPC. If, however, the Board's conclusions in points 10 and 11 of its communication dated 22 December 2023 were based on such an "obviousness-type rejection", the appellant should be given an additional opportunity to overcome this objection.

2.5 The Board is not entirely clear on what the appellant means by the term "obviousness-type rejection". It appears to include the COMVIK approach, which addresses inventive step in the context of mixed-type inventions and often results in objections that the technical implementation of non-technical features is obvious.

The Board has no doubt that the examining division correctly applied the COMVIK approach in its reasoning (see decision, points 1.6 and 1.7) and therefore based its refusal on lack of inventive step. This is explicitly stated in point 1 of the decision, which reads "The present application does not meet the requirements of Article 52(1) EPC because the subject-matter of claims 1-15 does not involve an inventive step within the meaning of Article 56 EPC".

2.6 The appellant further argued that their position was supported by decision G 0001/19 of the Enlarged Board of Appeal, specifically referring to points 30 and 31, 49, 51, 61, 85, 87, 94, 120, 140, and 142, and contended that the Board had not provided any reasoning or explanation to the contrary.

The Board does not share this view. The passages of G 0001/19 cited by the appellant essentially confirm the COMVIK approach, which the Board has applied in the present case, as explained above in point 2.1.4.

For instance, points 30, 31, 49, 140 and 142 of G 0001/19 state, *inter alia*, that distinguishing non-technical features which contribute to the solution of a technical problem must be taken into account when assessing inventive step. As previously outlined (cf. point 2.2), however, the distinguishing non-technical features in the present case relate to a scheduling method and do not contribute to the solution of a technical problem. Therefore, under the COMVIK approach, they cannot be considered in the assessment of inventive step (cf. *ibid.*, points 30 and 33).

Other passages cited by the appellant - such as points 51, 85, 87, 94, and 120 - relate to the definition and interpretation of the "technical effect". The Board notes, as also stated in the decision (see point 1), that the subject-matter of claim 1 as a whole produces a technical effect - for instance through feature F11 - and is therefore not excluded from patentability under Article 52(2) and (3) EPC. The Board also agrees with the appellant that a non-technical solution, such as a scheduling method, may in principle derive technical character if it serves to solve a technical problem. In the present case, however, the problem addressed is the

reduction of truck drivers' waiting time at a terminal - essentially a non-technical, logistical problem. Consequently, the solution likewise remains non-technical and does not contribute to the assessment of inventive step.

2.7 The appellant requested that the appeal be referred to the Enlarged Board of Appeal, stating that such a referral would enable the Enlarged Board to more clearly define the boundary between patentable and non-patentable inventions (see reply, last paragraph on page 3).

Firstly, the Board notes that no question for referral has been filed; accordingly, there is no valid request for a referral to be decided upon.

Secondly, the Board's application of the COMVIK approach does not depart from any interpretation or explanation of the Convention set out in previous decisions of the Enlarged Board of Appeal, in particular not from decision G 0001/19.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

T. Buschek M. Höhn

Decision electronically authenticated