

Datum
Date 25.11.2024
Date

Blatt
Sheet 1
Feuille

Anmelde-Nr:
Application No: 21 216 024.6
Demande n°:

The examination is being carried out on the **following application documents**

Main Request

Description, Pages

1-10 filed in electronic form on 22-12-2023

Claims, Numbers

1-9 filed in electronic form on 22-12-2023

Drawings, Sheets

1/6-6/6 as originally filed

Form 1002 (designation of inventor) filed in electronic form on 22-12-2023

Addendum to the form 1002 filed in electronic form on 22-12-2023

Auxiliary Request 1

Description, Pages

2-10 filed in electronic form on 22-12-2023

1 filed in electronic form on 04-10-2024

Claims, Numbers

1-9 filed in electronic form on 22-12-2023

Drawings, Sheets

1/6-6/6 as originally filed

Datum
Date 25.11.2024
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Sheet 2
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Anmelde-Nr:
Application No: 21 216 024.6
Demande n°:

Form 1002 (designation of inventor) filed in electronic form on 22-12-2023

Addendum to the form 1002 filed in electronic form on 04-10-2024

Auxiliary Request 2

Description, Pages

1-10 as originally filed

Claims, Numbers

1-9 filed in electronic form on 22-12-2023

Drawings, Sheets

1/6-6/6 as originally filed

Form 1002 (designation of inventor) filed in electronic form on 22-12-2023

Addendum to the form 1002 filed in electronic form on 04-10-2024

Facts and submissions

- 1 Application EP 21 216 024 was filed on 20.12.2021 as a divisional application of EP 18 275 163, which was filed on 17.10.2018.
- 2 With a communication dated 07.04.2022 the applicant was informed that the designation of inventor was not filed and invited to file a designation of inventor drawn up according to Article 81 and Rule 19(1) EPC within two months.

- 3 On 07.06.2022 the applicant filed as a main request the following designation of inventor (EPO Form 1002) (Designation 1; for a reference list of requests concerning designation of inventor see Annex 1):

"DABUS - the invention was autonomously generated by an artificial intelligence
1767 Waterfall Dr.
St Charles 63303
Missouri"

- 4 The applicant indicated that he acquired the right to the European patent as a successor in title by crossing the corresponding box in the EPO Form 1002.

- 5 As auxiliary request (Designation 2; see Annex 1) the applicant filed a designation of inventor (EPO Form 1002) containing the following statement in the field foreseen for indicating the inventor's particulars:

"The applicant is unable to identify the inventor. The applicant has the right to be granted the patent as the applicant owns the entirety of the AI system that devised the invention. Should a person claim any rights of inventorship, the applicant claims to have the rights to the invention and to the patent by way of succession in title".

- 6 The applicant indicated that he acquired the right to the European patent as a successor in title by crossing the corresponding box in the EPO Form 1002.

- 7 Together with the requests the applicant submitted a letter and an annex (Addendum). The applicant argued that the appeal decision concerning the designation of inventor in the parent application EP 18 275 163 had not been issued yet and that therefore the designation of inventor could not be refused. The applicant explained how the artificial intelligence (AI) system DABUS worked in principle, that it generated the invention and identified its novelty and salience and that therefore it should be accepted as inventor. According to the applicant the EPC does not prohibit designating AI systems as inventors and refusing to accept AI systems as inventors would be at odds with the purpose of the patent system to incentivize innovation and would not be fair. Since AI

systems cannot own rights, the AI system's owner should be the owner of the right to the patent. That is why, the applicant argued, the main request should be accepted as a valid designation of inventor.

- 8 As regards the auxiliary request (Designation 2; see Annex 1), the applicant referred to the decision of the UK Court of Appeal in *Thaler v Comptroller General of Patents Trade Marks and Designs* [2021] EWCA CIV1374. The applicant argued that if the AI system DABUS cannot be accepted as inventor (main request, Designation 1; see Annex 1) then the applicant is unable to identify the inventor. Since it is not a requirement of the EPC that there is an identified inventor and there is no sanction if the applicant cannot identify the inventor, the auxiliary request should be accepted as a designation of inventor meeting the EPC requirements.
- 9 On 01.07.2022 the European search report and the search opinion were issued, informing the applicant that the application does not meet the requirements of Article 52(1) EPC.
- 10 With the submission dated 18.08.2022 the applicant filed amended claims and requested oral proceedings.
- 11 With a submission dated 22.08.2022 and received at the EPO on 23.08.2022, the applicant modified his requests concerning the designation of inventor. The auxiliary request filed on 07.06.2022 (Designation 2; see Annex 1) became the main request. As a new auxiliary request (Designation 3; see Annex 1), the applicant filed the following designation of inventor (EPO Form 1002):
"Stephen L. Thaler by virtue of being the owner of the AI system (DABUS) that created the invention disclosed in the application".
- 12 The applicant filed again the annex (Addendum) already filed on 07.06.2022. Moreover, the applicant filed amended claims and description. The newly introduced first paragraph in the amended description contains the following statement:
"The applicant has identified Dr Stephen L Thaler as the deemed inventor by virtue of Dr Thaler being the owner of the artificial intelligence machine DABUS, located at 1767 Waterfall Dr, St Charles, Missouri 63303, United States of

- America. The invention disclosed herein was created autonomously by DABUS and is an AI-generated invention. Further details can be found in an Addendum to the designation of inventor filed with this application".
- 13 The applicant requested oral proceedings if neither the main nor the auxiliary request could be accepted.
- 14 With the communication dated 23.08.2022 the examining division informed the applicant of its preliminary opinion concerning the designation of inventor filed on 07.06.2022. The examining division was of the opinion that neither the main (Designation 1; see Annex 1) nor the auxiliary request (Designation 2; see Annex 1) met the requirements of the EPC, namely Article 81, Rule 19 and Article 60(1) EPC.
- 15 With the submission dated 06.09.2022 the applicant maintained his requests dated 22.08.2022.
- 16 On 5.10.2022 the application was published.
- 17 On 17.10.2022 the applicant filed a request to continue with the examination.
- 18 On 13.10.2022 and on 9.12.2022 third-party observations were filed, arguing that neither the main nor the auxiliary requests concerning the designation of inventor should be granted.
- 19 On 15.11.2022 and 15.02.2023 the applicant filed a reply to the third-party observations, arguing that how the invention was made plays no role in the European patent system and that there is no prohibition in law to an applicant indicating how the invention was made. The applicant referred to decision J 8/20.
- 20 On 05.03.2023, third party observations were received, which were forwarded to the applicant on 10.03.2023.

- 21 On 14.03.2023, the examining division issued a communication pursuant to Article 94(3) EPC, indicating that the examination of the application has revealed that it does not meet the requirements of the European Patent Convention. As regards the designation of inventor, according to the preliminary opinion of the examining division, none of the requests met the requirements of Article 81 EPC. As regards patentability, the examining division raised objections under Articles 56, 83, 123 EPC and objected to the amendments made to the description.
- 22 On 12.07.2023, the applicant requested an extension of the time limit for replying to the communication of the examining division. This request was granted on 18.07.2023. A further request for extension of the time limit for replying to the communication by the examining division of 14.09.2023, was granted on 19.09.2023.
- 23 On 15.09.2023 third third-party observations were received that were forwarded to the applicant on 22.09.2023.
- 24 On 29.11.2023, a reply to the communication from the examining division was received together with amended claims and a request for further processing. The applicant requested that third party observations are not considered, as they do not concern patentability and that third party filing observations is not a party to the proceedings. As regards the designation of inventor, the applicant expressed the opinion that the examining division should await the related decision of the UK Supreme Court before proceeding further on the issue. In any case, the applicant stressed that the examining division should accept the designation of inventor as is, in view of Article 19(2) EPC and in view of decision J 8/20. The applicant filed observations on the examining division's opinion on patentability and requested that the objection of insufficiency of disclosure be withdrawn, as it was not justified. As regards objections to the amended description, the applicant referred to decision J 8/20, which, in his opinion justified the introduced amendment.
- 25 On 7.12.2023 the request for further processing was allowed.

26 On 25-03-2024 the examining division was enlarged by the addition of a legally qualified examiner (Article 18(2) EPC).

27 On 22.12.2023 the applicant filed a new designation of inventor (Designation 4; see Annex 1) replacing all previous requests. EPO Form 1002 indicates Stephen L. Thaler as inventor. Additionally, the applicant filed an Addendum regarding the designation of the inventor (different from the one filed on 07.06.2022), and an amended description now containing the following preamble:

“The invention disclosed in this application is an AI-generated invention, which was conceived autonomously by the artificial intelligence machine DABUS, located at 1767 Waterfall Dr, St Charles, Missouri 63303, United States of America. Dr Thaler, the applicant, is the owner of DABUS.”

Additionally, the applicant filed amended claims 1-9.

28 On 23-05-2024 the examining division issued summons to attend oral proceedings. In the accompanying preliminary opinion, it indicated that it was of the preliminary view that the designation of inventor does not meet the requirements of the EPC and that the application should be refused in accordance with Article 90(5) EPC.

The examining division also indicated that the claimed invention is not sufficiently disclosed because the application does not contain any teaching on how to understand a “fractal profile”. To obtain a fractal, the fractal dimension and the iterative calculation procedure are mathematically important. The application is silent about this. The examining division indicated that the expression from the description “the profile of the wall will not be of pure fractal form but will have a form dictated by practical considerations such as the minimum practical or desirable size of its fractal components” throws further doubt as to how the container of claim 1 is to be manufactured. The reader is left without any explanation about what a non purely fractal profile with fractal components should be, or about what makes the size of a fractal component practical or desirable. A further objection of the examining division was that figures 2 and 3 are intended to show how two similar containers can be attached together. Line 3 of page 7 explains that the two containers have the same shape and fractal profiles. However, figure 2 shows two different containers. In the lower one, the portion marked 18-28 is convex, while the corresponding portion of the upper container is concave. The skilled person is

thereby left in doubt as to how they should design the container of claim 1. The opinion of the examining division was therefore that the requirements of Article 83 EPC have not been met.

The examining division indicated also that the insufficiency of disclosure leads to a lack of clarity (Article 84 EPC). The matter for which protection is sought is not clearly defined, and therefore the skilled person cannot know what would be the extent of the protection conferred by the potential European patent if granted (GL F-IV, 1) .

Finally, the examining division objected to the inventive step of claim 1 over D4 (WO2015/012894), arguing that the fractal shape of claim 1 does not provide for any technical effect compared to the container of D4.

29 On 04-10-2024 the applicant submitted as a main request the description, claims, form 1002 and addendum filed on 22-12-2023 (Designation 4; see Annex 1). As a first auxiliary request, he submitted the claims filed on 22-12-2023, an amended page 1 of the description, form 1002 filed on 22-12-2023 and an amended addendum (Designation 5; see Annex 1). As a second auxiliary request, the claims of 22-12-2023, the description as originally filed, form 1002 filed on 22-12-2023 and the amended addendum were submitted (Designation 6; see Annex 1).

30 Oral proceedings before the examining division of the EPO, enlarged by a legal member, took place on 05-11-2024.

Reasons for the decision

31 Third party observations

31.1 Under Article 115 EPC the observations filed by third parties in proceedings before the EPO should concern the patentability of the invention. Observations by third parties filed in the present proceedings do not concern patentability of the invention and therefore do not need to be considered (J 8/20 point 3 of the Reasons).

32 Main request

- 32.1 According to Article 81 EPC designation of the inventor is a mandatory requirement that any patent application must meet (J 8/20 reasons 4.2.1). A patent application must designate the inventor, who must be a natural person (J 8/20). If the applicant is not the inventor or not the sole inventor, the designation shall contain a statement indicating the origin of the right to the European patent (Article 81 EPC), e.g. using EPO Form 1002. This links Article 81 EPC to Article 60(1) EPC, which lays down the right to the European patent (J 8/20 reasons 4.2.1). If the applicant is the sole inventor, they should indicate this in the request for grant form (EPO Form 1001; see Guidelines for Examination in the EPO (2024) (GL), A-III, 5.1).
- 32.2 The EPO must check whether the designation of the inventor identifies an inventor within the meaning of the EPC (J 8/20 reasons 4.2.3 and 4.3.8), in particular whether it designates a natural person and whether it identifies the origin of the right to the European patent in line with Article 60(1) EPC (J 8/20 reasons 4.2.2).
- 32.3 As regards the designation of inventor according to the main request (Designation 4; see Annex 1), in Form 1002 the applicant Mr Stephen L. Thaler, designates himself as the inventor. The Addendum states that the invention was conceived autonomously by the machine DABUS and that Mr Thaler is not an inventor under the “traditional criteria”. The amended description contains a preamble stating that the invention disclosed in the application is an AI-generated invention, which was conceived autonomously by the artificial intelligence machine DABUS. The statements made in the Addendum and in the amended description are in line with the position of the applicant presented from the beginning of these proceedings and in the proceedings concerning the parent application.
- 32.4 According to decision J 8/20 cited by the applicant, applicants can explain how the invention was made, in particular in the description. While this is neither required, nor is it prohibited by the EPC (J 8/20 reasons 4.3.7), in the present case the Addendum and the amended description contradict the statement filed in Form 1002, making the designation of inventor unclear, and not allowing the examining division to establish who is designated as inventor.

- 32.5 The patent application must meet the EPC requirements as a whole (Article 97 EPC) and so Form 1002 cannot be viewed in isolation from the other statements concerning inventorship on file. The applicant argues that Form 1002 signed by the professional representative reflects the professional representative's legal assessment. According to the applicant, the Addendum does not contradict Form 1002, as it reflects the submission of the applicant himself, who is a legal layman.
- 32.6 The examining division notes that none of the Addendums on file have been signed. Therefore, it is not apparent whether they are submissions of the applicant or of his representative. This is however irrelevant, because in the proceedings under the EPC the professional representative is responsible for all submissions made in the proceedings on behalf of the party who they represent (G 4/95 point 8(b) of the Reasons). It follows that all documents and submissions on file are understood to be submissions of the applicant represented by a professional representative and must be considered together, especially considering that the applicant in the present proceedings does not have his residence in an EPC contracting state and therefore must act via his professional representative (Article 133(2) EPC).
- 32.7 The applicant further points out that according to Rule 19(2) EPC and GL A-III, 5.3, the EPO does not verify the accuracy of the designation of inventor. The applicant suggests that this means that the examining division should limit the assessment of the designation of inventor for compliance with the EPC only to checking whether Form 1002 indicates a human being as inventor. The examining division does not share this view. According to Article 81 and Rule 19(1) EPC, the applicant must designate the inventor and according to Article 97 EPC the application as a whole must meet the requirements of the EPC. The use of Form 1002 is not compulsory. In the case at hand the main and the auxiliary requests are based on several documents containing statements as to the designated inventor. Some of them (Form 1002) indicate that Mr Thaler is the inventor of the invention which is the subject of the present application. Other documents (Addendums, amended description according to the main request), suggest otherwise.
- 32.8 In the view of the examining division, the statements presented in Form 1002 and in the remaining submissions and documents are mutually exclusive. Therefore the examining division is not able to determine who the applicant designates as the inventor (himself or the artificial intelligence system DABUS) and whether the applicant has the right to the invention. It follows that a designation of inventor meeting the requirements of Article 81 and Rule 19 EPC

is not present. The ambiguity as to who is designated as inventor results in an uncertainty as to whether the applicant has the right to the patent which might result from this application (Article 60(1) EPC).

32.9 As a result the main request does not meet the requirements of Article 81, Rule 19 and Article 60(1) EPC.

32.10 As regards the applicant's reference to his duty of candour towards the United States patent and Trademark Office, the examining division notes that the present application is a European patent application examined under the European Patent Convention. Any duties that the applicant may have towards other authorities as regards domestic applications are independent of the assessment of the application for compliance with the requirements of the EPC (cf. J 8/20 point 4.2.2 of the reasons).

33 First and second auxiliary requests

33.1 The first and second auxiliary requests do not meet the requirements of the EPC because they content a similar contradiction as the main request.

33.2 The designation of inventor according to the first and second auxiliary requests comprises a modified addendum (Designations 5 and 6; see Annex 1). The applicant submits that the language used therein is the literal translation of the text accepted by the German Federal Supreme Court (BGH X2B 5/22). He argues that the wording "Dr Thaler had caused [...] DABUS to conceive of the invention ..." implies that some human involvement was needed to make the invention, which according to the German court would be a necessary condition to be considered as being an inventor. In the applicant's opinion this wording would be in line with the statement in Form 1002.

33.3 The examining division notes that the present proceedings concern the compliance of the designation of inventor with the EPC on which the decision of the Federal Supreme Court was not based. Moreover, the language of the present proceedings is English, and the decision of the Federal Supreme Court

relates to a designation of inventor filed in German. Therefore, the decision of the Federal Supreme Court does not need to be addressed (cf. T 452/91 point 5.4.1 of the Reasons; G 1/19 point 135 of the Reasons).

33.4 As regards the wording of the Addendum according to the first and second auxiliary requests, the examining division considers that it does not imply that Dr Thaler himself made the invention. It clearly states that the DABUS system conceived (i.e. made) the invention. The fact that the Addendum states that it was Dr. Thaler who “caused” DABUS to “conceive of the invention” does not change this conclusion. While the word “cause” may suggest some undefined involvement of Dr. Thaler, the statement that DABUS conceived of the invention amounts to unambiguously stating that DABUS was the inventor and is in contradiction with the designation of Mr Thaler as inventor in Form 1002.

33.5 In view of the above, the first and second auxiliary requests do not meet the requirements of Article 81, Rule 19 and Article 60(1) EPC for the same reasons as the main request.

34 Decision

34.1 In the absence of any further request from the applicant, the application is therefore refused.

34.2 During oral proceedings the applicant requested to discuss all remaining objections raised in the summons for oral proceedings and that a decision on these objections is issued. This request was refused. In the absence of any allowable request concerning designation of inventor, the examining division was under no obligation to discuss or comment on aspects concerning the invention which were raised in the preliminary opinion (cf. T 856/05 point 3.1 of the Reasons).

EP 21 216 024 – Annex 1 - Overview of requests concerning designation of inventor

No	Date of filing	F1002	Addendum	Amended description
1	07-06-2022	Inventor: DABUS Applicant's entitlement: succession in title	<ul style="list-style-type: none">• DABUS conceived of the invention• Explanation of what DABUS is• Arguments why AI should be accepted as inventor• Arguments why ownership of the invention should be allocated to the owner of the AI	N/A
2	07.06.2022	Inventor: unable to identify the inventor	<ul style="list-style-type: none">• DABUS conceived of the invention• Explanation of what DABUS is	N/A

		Applicant's entitlement: succession in title	<ul style="list-style-type: none">• Arguments why AI should be accepted as inventor• Arguments why ownership of the invention should be allocated to the owner of the AI	
3	22.08.2022	Inventor: "Stephen L. Thaler by virtue of being the owner of the AI system (DABUS) that created the invention disclosed in the application"	<ul style="list-style-type: none">• DABUS conceived of the invention• Explanation of what DABUS is• Arguments why AI should be accepted as inventor• Arguments why ownership of the invention should be allocated to the owner of the AI	"The applicant has identified Dr Stephen L Thaler as the deemed inventor by virtue of Dr Thaler being the owner of the artificial intelligence machine DABUS, located at 1767 Waterfall Dr, St Charles, Missouri 63303, United States of America. The invention disclosed herein was created autonomously by DABUS and is an AI-generated invention. Further details can be found in an Addendum to the designation of inventor filed with this application"
4	22.12.2023	Inventor: Stephen L. Thaler (applicant)	<ul style="list-style-type: none">• DABUS conceived of the invention• Output of AI should be patentable	"The invention disclosed in this application is an AI-generated invention, which was conceived autonomously by the artificial intelligence machine DABUS, located at 1767 Waterfall Dr, St

			<ul style="list-style-type: none">• Dr Thaler submits that he is not the inventor under traditional criteria	Charles, Missouri 63303, United States of America. Dr Thaler, the applicant, is the owner of DABUS.”
5	04-10-2024	Inventor: Stephen L. Thaler (applicant)	<ul style="list-style-type: none">• Dr Thaler caused DABUS to conceive of the invention	"The file contains information about how the invention was conceived that was submitted after the application was filed and which is not included in this specification."
6	04-10-2024	Inventor: Stephen L. Thaler (applicant)	<ul style="list-style-type: none">• Dr Thaler caused DABUS to conceive of the invention	N/A