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**Datasheet for the decision
of 13 January 2023**

Case Number: T 1777/20 - 3.5.05

Application Number: 13741682.2

Publication Number: 2864866

IPC: G06F3/14

Language of the proceedings: EN

Title of invention:
METHOD AND SYSTEM FOR DISPLAYING PIXELS ON DISPLAY DEVICES

Applicant:
Universität des Saarlandes

Headword:
Composite display device/UNI SAARLAND

Relevant legal provisions:
EPC Art. 113
EPC R. 103(1)
RPBA 2020 Art. 12(6)

Keyword:
Reimbursement of appeal fee - (no) - substantial procedural
violation (no)
Late-filed request - circumstances of appeal case justify
admittance (yes)

Case Number: **T 1777/20 - 3.5.05**

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 13 January 2023

Appellant: Universität des Saarlandes
(Applicant)   Campus Saarbrücken
                           66123 Saarbrücken (DE)

Representative: Bach, Alexander
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Decision under appeal: **Decision of the Examining Division of the**
                           European Patent Office posted on 17 March 2020
                           refusing European patent application No.
                           13741682.2 pursuant to Article 97(2) EPC.

Composition of the Board:

Chair   A. Ritzka
Members: P. Cretaine
                K. Kerber-Zubrzycka

Summary of Facts and Submissions

I.   This appeal is against the examining division's
        decision posted on 17 March 2020 refusing
        European patent application No. 13741682.2. The
        application was refused for lack of clarity
        (Article 84 EPC) and lack of inventive step
        (Article 56 EPC) of the main request in view of the
        disclosure of:

        D8: US 2010/164970

        and the common general knowledge of the Windows
        operating system environment.

        An auxiliary request filed during the oral proceedings
        was not admitted into the proceedings under Rule 137(3)
        EPC.

II.   Notice of appeal was received on 27 May 2020, and the
        appeal fee was paid on the same date. The statement
        setting out the grounds of appeal was received on
        27 July 2020. The appellant requested that the decision
        be set aside and that a patent be granted on the basis
        of a main request filed with the statement setting out
        the grounds of appeal or auxiliary requests I or II
        corresponding to the main request and the auxiliary
        request, respectively, on which the decision was based.
        Furthermore, the appellant objected that its right to
        be heard had not been respected. Oral proceedings were
        requested as an auxiliary measure.

III.   A summons to oral proceedings was issued on
        9 May 2022. In a communication pursuant to Article
        15(1) RPBA, sent on 6 December 2022, the board gave its

preliminary opinion that the main request and auxiliary request II should not be admitted into the appeal proceedings under Article 12(6) RPBA and that auxiliary request I did not appear to meet the requirements of Article 84 EPC and Article 56 EPC having regard to D8 and the common general knowledge. Furthermore, the board expressed the opinion that, contrary to the appellant's assertion, the right to be heard under Article 113(1) EPC had not been infringed.

IV.   By letter dated 5 January 2023, the appellant provided further arguments for the main request and auxiliary request I, withdrew auxiliary request II, and filed a new auxiliary request II.

V.   Oral proceedings were held on 13 January 2023. The appellant requested that the decision under appeal be set aside and that a patent be granted based on the main request submitted with the statement of grounds of appeal, auxiliary request I corresponding to the main request filed during the oral proceedings before the examining division on which the decision under appeal was based or auxiliary request II submitted with the letter of 5 January 2023. The appellant further requested that the appeal fee be reimbursed. The board's decision was announced at the end of the oral proceedings.

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

" A method for displaying pixels on physical display devices (2) in a network (7), **characterized by** the steps of
b) Generating, on a pixel receiving side, by a virtual display service implemented on a computer, a composite virtual display (1) with display parameters

representing one or more physical display devices (2),
the composite virtual display comprising one or more
transport pipelines for receiving pixel data generated
by one or more pixel sources (5) and one or more back-
end components for drawing the pixels of the received
pixel data onto a screen of the physical display
devices (2),

c1) Requesting, by the one or more pixel sources (5),
more than one virtual framebuffer (6) from a display
manager (M), the display manager being a separate
software component running on a host reachable through
the network (7),

c2) Providing, on a pixel serving side, by a virtual
framebuffer service implemented on a computer, the
requested one or more virtual framebuffers (6) to the
requesting pixel sources (5), each virtual framebuffer
having a resolution requested by a pixel source (5),
wherein the requested resolution is independent of the
resolution of the physical display devices (2), and
providing a memory region for temporarily storing the
pixel data,

d) Writing pixel data into the virtual framebuffers (6)
by the one or more pixel sources (5), using an
application view part of an application programming
interface (API) of the virtual framebuffer (6),

e1) Mapping the pixel data, according to the display
parameters, from the one or more virtual framebuffers
(6) to the composite virtual display (1),

e2) Setting up, by the display manager (M), an end-to-
end data flow between a pixel source (5) represented
by the virtual framebuffer it is writing to and the
physical display devices, according to the mapping,
using a management view part of the application
programming interface (API) of the virtual framebuffer
(6),

f) Transmitting, according to the end-to-end data flow
set up by the display manager, the mapped pixel data
stored in the virtual framebuffers (6) to the one or
more physical display devices of the composite virtual
display via the network (7) based on a network
transmission protocol,
g) Displaying the pixels of the transmitted pixel data
on the physical display devices (2),
characterized in that the virtual frame buffers (6a,
6b) are hosted on more than one server and pixel data
stored in more than one of the virtual frame buffers
(6a, 6b) is transmitted to the same physical display
device."

Claim 1 of auxiliary request I reads as follows:

"A method for displaying pixels on physical display
devices, characterized by the steps of

b) Generating, on a pixel receiving side, by a virtual
display service implemented on a computer, one or more
virtual displays providing an interface to communicate
with a physical display and comprising a back-end for
drawing pixels on the physical display, with display
parameters representing one or more display devices
(2),
c) Providing, on a pixel sending side, by a virtual
framebuffer service implemented on a computer, one or
more virtual framebuffers(6), for temporarily storing
pixel data generated by one or more pixel sources (S),
d) Writing pixel data into the virtual framebuffers (6)
by the one or more pixel sources (5),
e) Linking the one or more virtual displays with the
one or more framebuffers, so that pixels written into a
number of virtual framebuffers are destined to be
transmitted to the linked virtual displays and

therefore be displayed by one or more physical display
devices linked with corresponding virtual displays,
f) Transmitting the pixel data stored in more than one
virtual frame buffer (6) to the same linked virtual
display devices via a network (7) based on a network
transmission protocol,
g) Displaying the pixels of the pixel data on the
physical display devices (2) linked with the
corresponding virtual displays."

Claim 1 of auxiliary request II reads as follows:

"A method for displaying pixels on physical display
devices, characterized by the steps of
b) Generating, on a pixel receiving side, by a virtual
display service implemented on a computer, one or more
virtual displays with display parameters representing
one or more physical display devices (2), the one or
more virtual displays providing an interface to
communicate with a physical display device,
c) Providing, on a pixel serving side, by a virtual
framebuffer service implemented on a computer, one or
more virtual framebuffers (6), for temporarily storing
pixel data for pixels to be displayed, generated by one
or more pixel sources (S),
d) Writing pixel data into the virtual framebuffers (6)
by the one or more pixel sources (5),
e) Linking the one or more virtual displays with the
one or more framebuffers, so that pixel data written
into a number of virtual framebuffers are destined to
be transmitted to the linked virtual display devices
and therefore be displayed by one or more physical
display devices represented by the virtual displays,
f) Transmitting the mapped pixel data stored in the
more than one virtual frame buffers (6) to the same

linked virtual display via a network (7) based on a
network transmission protocol,
g) Displaying the pixels of the transmitted pixel data
on the physical display devices (2) represented by the
virtual displays."

Reasons for the Decision

1.   Right to be heard - Article 113(1) EPC

The appellant argued that its right to be heard had not
been respected during the examination proceedings.

According to the appellant, the reasoning under point 3
of the decision, namely an inventive-step objection
based on D8 and the common general knowledge of the
Windows operating system environment at the basis of
the decision, was not part of any communication
previous to the oral proceedings and was not
sufficiently discussed during the oral proceedings
before the examining division. First, the appellant
argued that the only communication citing D8 was filed
only a few days before the oral proceedings and did not
contain a substantiated line of argument why this
document was relevant. Second, the appellant argued
that although the content of D8 had been discussed at
length during the oral proceedings, the division relied
on the combination of D8 with the common general
knowledge of the Windows environment only at the end of
the oral proceedings, this not giving the appellant
enough time to react. It further argued that its
request to continue the proceedings in writing had been
refused.

However, the board notes that D8 has been cited in a
communication sent one week before the oral

proceedings in response to new auxiliary requests
filed after the summons had been sent. In this
communication, the examining division stated that D8
disclosed the use of virtual frame buffers in a server
for generating composite displays. In oral proceedings,
a novelty objection based on D8 against the then main
request was discussed (see points 4 and 5 of the
minutes of the oral proceedings). In response to the
findings of the examining division that the then main
request was not new, the appellant filed a new main
request and a new auxiliary request replacing all
previous requests (see point 7 of the minutes). Again,
a novelty objection based on D8 was discussed (see
point 8 of the minutes), and in response the appellant
filed a new main request and a new auxiliary request,
replacing the previous requests (see point 9 of the
minutes), these new requests being the subject of the
impugned decision. In the oral proceedings, the
examining division raised an inventive-step objection
against the main request based on D8 and the common
general knowledge (see point 12 of the minutes), where
the common general knowledge was clearly identified as
the GUI of Microsoft Windows (see point 14 of the
minutes). Points 16 and 17 of the minutes show that the
appellant had the opportunity to counter-argue before
the discussions on the main request were closed.

In conclusion, the board holds that the appellant
became aware during the oral proceedings of the
inventive-step objection in point 3 of the decision and
had an opportunity to present comments. Therefore, the
requirements of Article 113(1) EPC are fulfilled.

Since no substantial procedural violation of the
appellant's right to be heard occurred, the request for
reimbursement of the appeal fee under

Rule 103(1)(a) EPC, submitted by the appellant during the oral proceedings before the board, cannot be allowed.

2.   Admission of the main request filed with the statement setting out the grounds of appeal

The main request was filed for the first time with the statement setting out the grounds of appeal. The appellant's appeal case is thus not directed to the requests on which the decision under appeal was based, contrary to the requirements of Article 12(2) RPBA. Since the main request was not admissibly raised and maintained in the examination proceedings, it has to be regarded as an amendment within the meaning of Article 12(4) RPBA and may be admitted only at the discretion of the board. The board may admit such a request when the circumstances of the appeal case justify it (Article 12(6) RPBA).

As to these circumstances, the appellant argued, *inter alia,* that the new characterising feature of claim 1 was added to overcome the inventive-step objection based on D8 and the common general knowledge of the Windows operating system environment. This objection was raised by the examining division only at a later stage of the oral proceedings and was not sufficiently discussed in the oral proceedings. Moreover, the document D8 was introduced only a few days before the oral proceedings for its disclosure of virtual frame buffers, whereas all the prior-art documents on file did not rely on virtual frame buffers. Furthermore, although D8 was discussed at the beginning of the oral proceedings, the examining division additionally relied on the common general knowledge of the Windows operating system at a very late stage of the oral

proceedings and rejected the appellant's request to
continue the procedure in writing.

The board considers these circumstances to justify the
admission of the main request into the appeal
proceedings under Article 12(6) RPBA.

However, since the main request adds new features not
discussed in the first-instance proceedings, the board
considers it appropriate to remit the case under
Article 11 RPBA for assessment of compliance of the
main request with the requirements of the EPC.

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 for further prosecution.
3.   The request for reimbursement of the appeal fee is rejected.

The Registrar: The Chair:

K. Götz-Wein   A. Ritzka

Decision electronically authenticated