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KH MA MD TN</p> <p>(30) Priority: 21.03.2018 CN 201810234726</p> <p>(71) Applicant: Beijing Xiaomi Mobile Software Co., Ltd.
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(54) **METHOD, DEVICE, TERMINAL AND STORAGE MEDIUM FOR PREVENTING DISPLAY FROM IMAGE-STICKING**

- (57) A method, a device, a terminal and a storage medium for preventing a display from image-sticking are provided in the present disclosure, in the field of display technology. The method includes: acquiring a target image frame to be displayed, and determining image information of each display unit in the target image frame; determining, according to the image information of each display unit in the target image frame, the target display unit whose duration of the image information not changed reaches a preset duration threshold; and changing the images of the target display units in a consecutive preset number of image frames. Problems of premature aging of the OLED material and the phenomenon of the image-sticking due to the OLED display displays the same image for a long time can be solved. The effects of preventing OLED display screen from image-sticking and prolonging the service life of OLED material can be achieved.

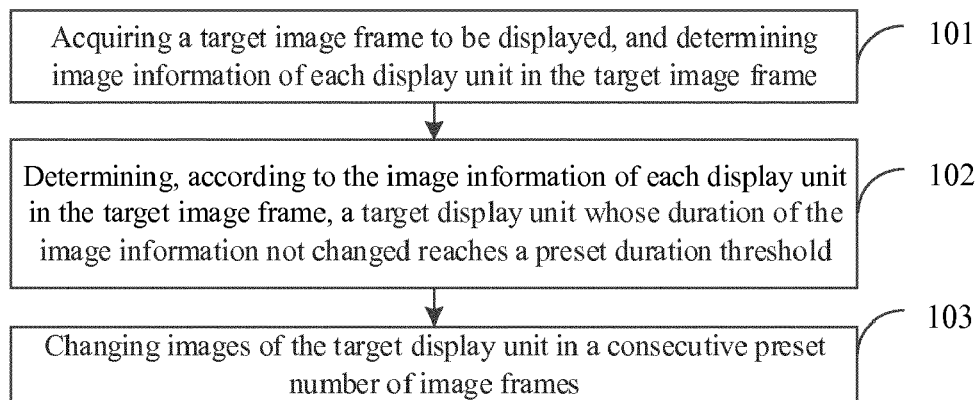


FIG. 1

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

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Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

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No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

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LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

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see sheet B

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All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

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As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

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Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

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None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

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1-3, 8-10, 14, 15

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The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

EP 19 15 3900

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

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1. claims: 1-3, 8-10, 14, 15

These claims refers to a image sticking prevention mode wherein in order to detect that an image or part of an image has been displayed longer than a predetermined time, the image of a frame is compared pixel by pixel and for every color of every pixel with the previous image displayed.

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2. claims: 4, 11

These claims refers to a image sticking prevention mode wherein in order to detect that an image or part of an image has been displayed longer than a predetermined time, the image of a frame is compared with the previous frame displayed by areas making use of a feature code corresponding to each area.

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3. claims: 5, 12

These claims refer to a image sticking prevention mode wherein once an area prompted to suffer such sticking is detected a preset image is displayed instead

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4. claims: 6, 13

These claims refers to a image sticking prevention mode wherein once an icon or logo belonging to an area prompted to suffer such sticking is detected the logo or icon is forced to change its position

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5. claim: 7

This claim refers to a image sticking prevention mode wherein once an area prompted to suffer such sticking is detected, the content of the area is identified and if such content corresponds to a black display content, no operation is performed

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ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 19 15 3900

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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18-06-2019

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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		KR 20060043797 A	15-05-2006
		US 2005204313 A1	15-09-2005

US 2010053039 A1	04-03-2010	KR 20100026739 A	10-03-2010
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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	用于防止显示中的图像胶粘剂的过程，设备和存储介质		
公开(公告)号	EP3543993A3	公开(公告)日	2019-11-06
申请号	EP2019153900	申请日	2019-01-28
[标]申请(专利权)人(译)	北京小米移动软件有限公司		
申请(专利权)人(译)	北京赛美移动软件有限公司		
当前申请(专利权)人(译)	北京赛美移动软件有限公司		
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发明人	ZHONG, GUILIN LI, GUOSHENG LIU, ZHENGLIANG		
IPC分类号	G09G3/3208 G09G3/20		
CPC分类号	G09G3/3208 G09G3/20 G09G2320/046 G09G2320/103 G09G2360/16 G06F3/04817 G06F9/30 G09G5/003 G09G2300/0861		
优先权	201810234726.X 2018-03-21 CN		
其他公开文献	EP3543993A2		
外部链接	Espacenet		

摘要(译)

在显示技术领域，本公开提供了一种用于防止显示器发生图像残留的方法，设备，终端和存储介质。该方法包括：获取要显示的目标图像帧；确定目标图像帧中每个显示单元的图像信息；根据目标图像帧中每个显示单元的图像信息，确定图像信息的持续时间未达到预设的持续时间阈值的目标显示单元；在连续的预设数量的图像帧中改变目标显示单元的图像。可以解决OLED材料过早老化的问题以及由于OLED显示器长时间显示相同图像而引起的图像残留现象。可以达到防止OLED显示屏残影和延长OLED材料使用寿命的效果。

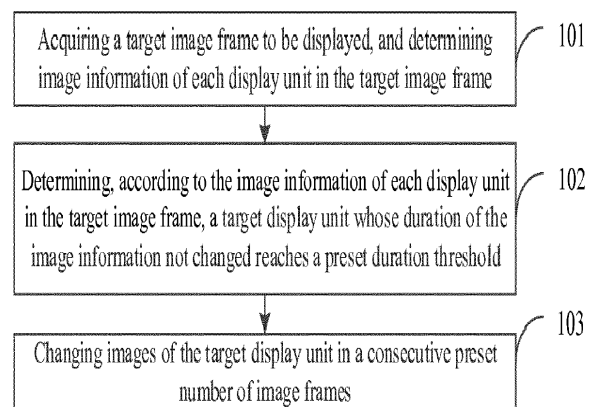


FIG. 1