



Patentability of user interfaces

EPO Guidelines update November 2017
(Part G-II, 3.7 & 3.7.1)

Introduction

In Europe, only features of the claim which have a technical effect can contribute to an inventive step. The mere presentation of information per se is not considered technical.

User interfaces may in general comprise both technical and non-technical features. The EPO Guidelines and case law do not give a definitive definition as to which features of a user interface are technical and which are not.

However, the guidelines do note that user interfaces have features for both user input and output, and that features relating to user input are more likely to have technical character because “input requires compatibility with the predetermined protocol of a machine, whereas output may be largely dictated by the subjective preferences of a user”.

When assessing the technical character, one should assess: the context of the invention, the task the user carries out, and the actual purpose which is served by the particular information presented.

OUTPUT: Presentation of information (EPO Guidelines G-11, 3.7)

The output side of a user interface relates to presenting information to a user, whether graphically or through other means such as an audio or haptic output.

The Guidelines state: “A presentation of information produces a technical effect if it credibly assists the user in performing a technical task by means of a continued and/or guided human-machine interaction process.” The effect must be “objectively, reliably and causally linked” to the feature in question. If the effect is subjective to the interests or preferences of the user, it does not count.

The Guidelines consider two aspects: (i) WHAT is displayed (“cognitive content”), and (ii) HOW it is displayed.

- i) WHAT? The Guidelines state: “If the cognitive content of the information presented to the user relates to an internal state prevailing in a technical system and enables the user to properly operate this technical system, it has a technical effect”.

An internal state reflected in the presented information must relate to the internal state of the system such as an operating mode, technical condition, or an event to qualify as technical. Static or predetermined information does not count. Nor does the state of a non-technical application run on the machine.

- ii) HOW? The Guidelines state: “Features defining a visualisation of information in a particular diagram or layout are normally not considered to make a technical contribution”.

This applies even if the information is conveyed in a way which the user may intuitively regard as more lucid or logical. Dealing with limited screen space is also not considered technical. In some exceptional cases, technical effects may arise from a manner of presentation that facilitates a continued human-machine interaction or enables the user to perform a technical task in a more efficient or precise manner. Also, information presented in the context of assessing a medical condition may be considered technical.

INPUT: User input (EPO Guidelines G-11, 3.7.1)

The input side of a user interface relates to receiving input from a user.

The Guidelines state: *“Features which specify a mechanism enabling user input, such as entering text, making a selection, or submitting a command, are normally considered to make a technical contribution”.*

Data input more often qualifies as technical because the input normally requires compatibility with the predetermined protocol of the machine. However, if the input method merely reflects subjective user preferences, conventions, games rules or aesthetic considerations, and if a physical ergonomic advantage cannot be objectively established, then it is non-technical. For example merely supporting a user’s mental-decision making process is not considered technical.

Examples

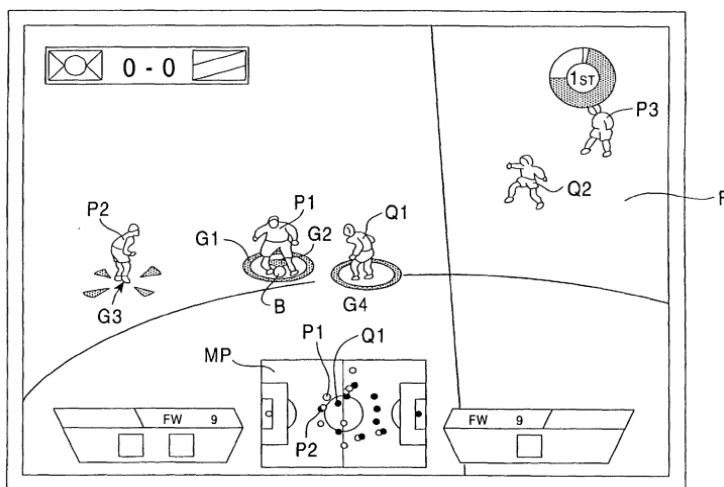
Technical	Non-technical
Assisting a user in entering text in a computer system by providing a predictive input mechanism	Supporting user input by providing information facilitating only the user's mental decision-making process during this task
Performance-oriented improvements to the detection of input	Helping the user in deciding what he wants to input
A GUI with an alternative graphical shortcut allowing the user to directly set different processing conditions, such as initiating a printing process and setting the number of copies to be printed by dragging and reciprocated movement of a document icon onto a printer icon	Rules used to generate such predictive text suggestions which reflect purely linguistic considerations
Allowing faster or more accurate gesture recognition or reducing the processing load of the device when performing recognition	Gestures/keystrokes if merely reflecting subjective user preferences, conventions, or game rules and from which a physical ergonomic advantage cannot be objectively established
	Effects dependent exclusively on subjective user abilities or preferences
	A reduction of the number of interactions required to perform a task which depends on the user's level of expertise or subjective preferences
	Features determined by aesthetic considerations, subjective user preferences, or administrative rules
	The look and feel of a menu

Specific case law examples

T 928/03 – technical

In a video soccer game, the particular manner of conveying to the user the location of the nearest teammate by dynamically displaying a guide mark on the edge of the screen when the teammate is off-screen serves the technical purpose of facilitating a continued human-machine interaction by resolving conflicting technical requirements: displaying an enlarged portion of an image and maintaining an overview of a zone of interest which is larger than the display area.

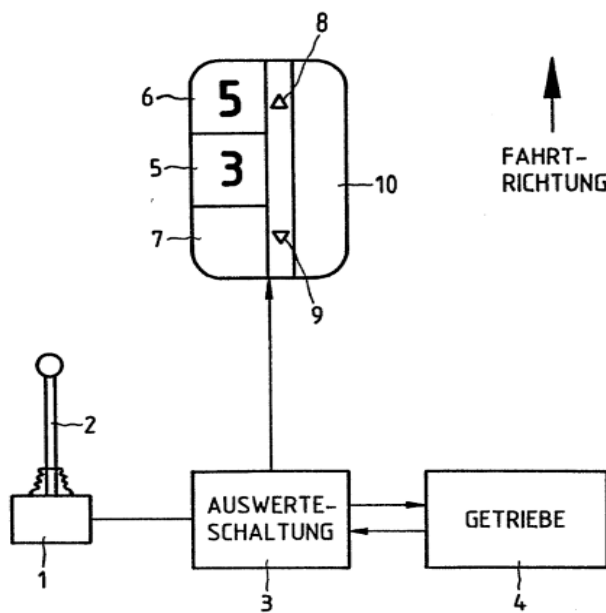
FIG. 6



T 928/03 – technical

1. Gear-change indicator (10) for a gear changing system for a vehicle transmission, having an evaluating circuit (3) which, on the basis of signals relating to the driving conditions of a vehicle, determines the most favourable gear, characterised in that the gear-change indicator (10) indicates both the gear engaged and the gear determined as being the most favourable.

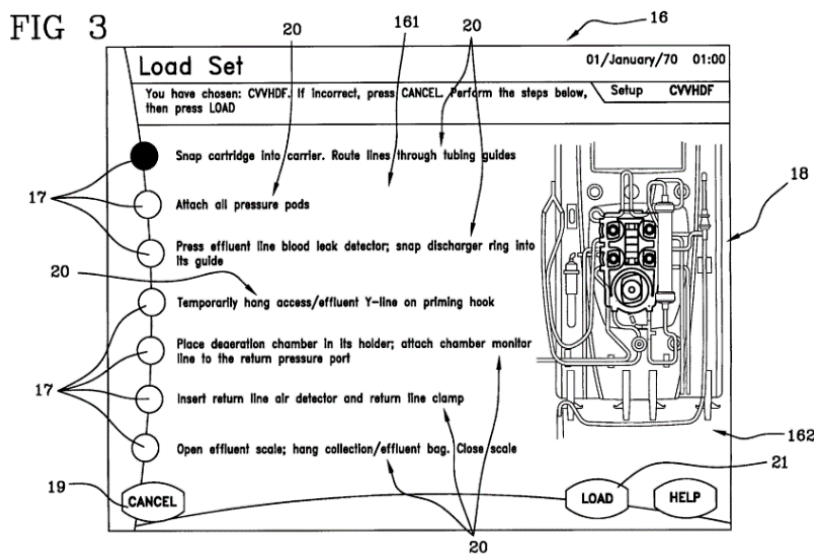
The information presented to the user relates to a current internal state prevailing in a dynamic technical system. Therefore, it has a technical effect.



T 0336/14 – non-technical

An interface for an extracorporeal blood treatment, wherein a number of tabs are displayed (to a nurse) on a user interface relating to steps of operating a machine. When a tab is selected, pictographs are displayed along with an explanation of how to operate the machine in accordance with that step.

The applicant argued that the “why” was to help a nurse in setting up the blood treatment machine in a safe and efficient way. However, the presented information relates to pre-stored static information, and it does not assist the user in performing a technical task. These features were found to be non-technical and therefore the claim was not patentable.

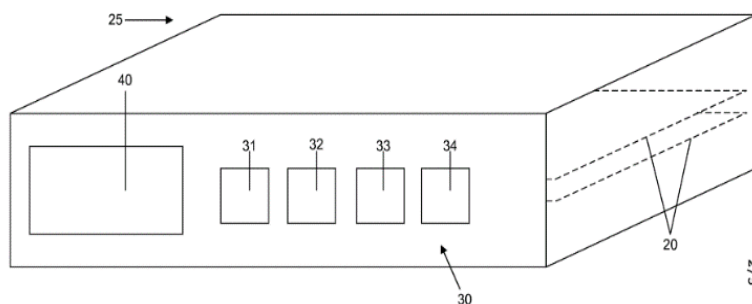


T 1073/13 – non-technical

A device having a plurality of buttons to operate the device. The device is provided with a display area for displaying which order the buttons should be pushed for correct functioning.

The information presented to the user relates merely to the user's mental process such that "the user is not required to memorise or know the particular button sequence". Therefore, this is non-technical.

FIG. 2



This briefing is for general information purposes only and should not be used as a substitute for legal advice relating to your circumstances. We can discuss specific issues and facts on an individual basis. Please note that the law may have changed since the day this was first published in November 2017



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