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## IN THE HIGH COURT OF JUDICATURE AT MADRAS

|                        |            |
|------------------------|------------|
| Judgment reserved on   | 19.12.2023 |
| Judgment pronounced on | 03.07.2024 |

CORAM:

THE HON'BLE MR. JUSTICE SENTHILKUMAR RAMAMOORTHY

(T) CMA (PT) No.49 of 2023[OA/36/2020/PT/CHN]

Microsoft Technology Licensing LLC,  
One Microsoft Way,  
Redmond, WA 98052,  
United States of America

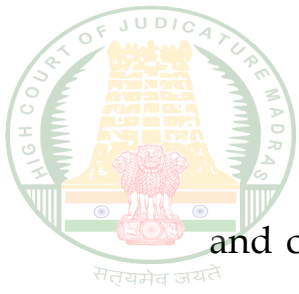
... Appellant

v.

Assistant Controller of Patents,  
Patent Office, Intellectual Property Office Building,  
G.S.T.Road, Guindy,  
Chennai-600 032.

... Respondent

**PRAYER:** This Civil Miscellaneous Appeal filed under Section 117-A of the Patents Act, 1970, prays (i) that this Court set aside the order dated 24.01.2020, passed by the Respondent herein in Application No. 5584/CHENP/2010 dated 07.09.2010 and hold that the claimed invention is patentable subject matter and involves an inventive step



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and consequently to issue patent on the said application; and (ii) to pass such further and other order(s) as the court may seem fit and proper in the interests of justice.

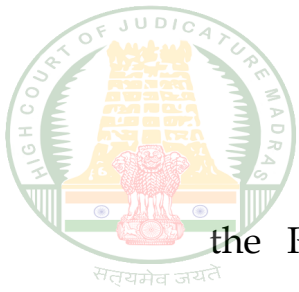
For Appellant : Ms. Vindhya S.Mani  
Mr. Kiran Manokaran  
Mr G. Sheerabhinath  
for M/S. Lakshmikumaran and  
Sridharan Attorneys

For Respondent : Mr.S. Diwakar, SPC

## **JUDGMENT**

### **Background**

The appellant filed Indian Patent Application No.5584/CHENP/2010 on 07 September 2010 for the grant of patent for an invention titled 'Associating Command Services with Multiple Active Components'. The said application was published on 08.04.2011. Based on a request for examination dated 05 March 2012, the First Examination Report (FER) dated 23 March 2018 raised objections on the grounds of: lack of inventive step by citing D1 (US 2005108734 A1), D2 (US 2007209008 A1) and D3 (US2007186212 A1); exclusion from patent-protection under sections 3(k) and 3(m) of



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the Patents Act, 1970 (the Patents Act); and lack of sufficient disclosure under section 10(5). The appellant filed a response thereto on 01 June 2018 by deleting claims 8 and 10-16 out of original claims 1-20, and by amending and renumbering the remaining claims as 1-12.

2. The hearing notice dated 26 September 2019 raised the following objections, viz., the amendments to the claim are beyond the scope of the claimed invention and therefore violate section 10(5) of the Act; amended claims 1-12 lack inventive step under section 2(1)(ja) of the Patents Act in view of prior arts D1, D2 and a newly cited prior art D4 (20070016857 A1); amended claims 9-12 are excluded under section 3(k) as they constitute computer programme *per se* and do not involve an inventive hardware. The hearing took place on 1 November 2019, pursuant to which the appellant filed written submissions on 15 November 2019, along with further amended claims 1-11. After the hearing, the application was rejected by impugned order dated 24 January 2020. The present appeal arises



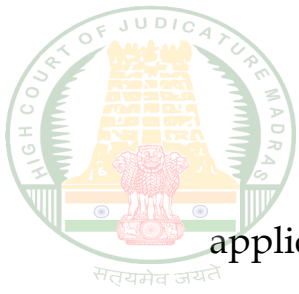
in the above facts and circumstances.

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**Counsel and their contentions:**

3. Oral arguments on behalf of the appellant were submitted by Ms. Vindhya Mani, learned counsel, assisted by Mr. Kiran Manokaran and Mr. G. Sheerabhinath, appearing for M/s. Lakshmikumaran and Sridharan Attorneys; and on behalf of the respondents by Mr.S.Diwakar, learned SPC. Both the appellant and the respondent filed written submissions.

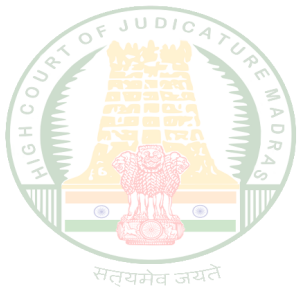
4. Learned counsel for the appellant submitted the following: that independent claims 1 and 8 and the other dependent claims provide, *inter alia*, a method for associating a command surface with active components wherein the command surface is coupled to more than one component on a page, even when the components are associated with different applications, resulting in directing the command to more than one application for processing. The technical problem the invention attempts to address is the inability or inefficiency of conventional systems to process different unrelated



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applications simultaneously as each component includes its independent command surface to process the respective application.

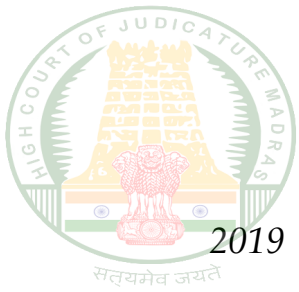
In order to solve this identified problem, the claimed invention provides a system and method wherein the command surface is coupled to more than one component on a page, even when the components are associated with different applications, resulting in directing the command to more than one application for processing. This is achieved by including the user selectable commands on the command surface for performing actions. The system provides a command manager which is configured to identify and acquire the command lists by polling the respective components. Different components/applications are registered to receive notifications from at least one same user selectable command included on the command surface. When the command on the command surface is activated, it is determined from the command list that the command needs to be dispatched for processing. A large number of unrelated applications can be processed by utilizing or sharing the same command surface thereby increasing the system efficiency.



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5. Learned counsel further submitted that the respondent erred in rejecting the application as non-patentable subject matter under section 3(k) of the Patents Act by erroneously relying on the Guidelines for Examination of Computer Related Inventions, 2016 (CRI Guidelines 2016). She pointed out that the CRI Guidelines 2016 required the use of 'novel hardware' features in the invention for it to be patentable, whereas, the revised Guidelines for Examination of Computer Related Inventions, 2017 (CRI Guidelines 2017) dispensed with this requirement and provides that the assessment is to be done by examining the claimed invention in substance. She further submitted that reference is made therein to the use of the qualifier “per se” and to the intention to only exclude computer programmes as such.

6. Learned counsel also contended that the respondent failed to apply the standard laid down in *Ferid Allani v Union of India and Ors.*,



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2019 SCC Online Del 11867 ('Ferid Allani') and Microsoft Technology

Licensing LLC v The Assistant Controller of Patents and Designs, C.A.

(COMM.IPD-PAT) 29/2022 ('Microsoft'), wherein it was held that the patentability of CRI under section 3(k) should be tested on the fulcrum of 'technical effect' and 'technical contribution' that improves the system's functionality and effectiveness. According to her, the claimed invention possesses such enhanced technical effect and is inventive over conventional systems by associating the unrelated components of different applications on a page to a common command surface. In order to address the inability of existing web platforms to process unrelated applications simultaneously, she contended that the claimed invention provides a method and system wherein instead of each command surface on a web page being directly coupled to only one component on a page, the command surface herein is coupled to more than one component on a page, even when the components are associated with different applications thereby resulting in directing the command to more than one application for processing. Further, it was submitted that the



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respondent erroneously brought up the enablement and sufficiency requirements as grounds for rejection under section 3(k) of the Patents Act.

7. As regards the rejection under section 2(1)(j)(a), learned counsel relied on *Agriboard International LLC v Deputy Controller of Patents & Designs* (2022:DHC:1206) and contended that the order is non-speaking and provides insufficient reasoning in its finding that the claimed invention lacks inventive step over the cited prior arts D1, D2 and D4. Learned counsel further contended that the respondent did not follow the five-step criteria set out in *F.Hoffman-La Roche Ltd and Ors v Cipla Ltd.* (2015:DHC:9674-DB) ('*Hoffman La Roche*') to determine presence of inventive step by not identifying the Person Skilled in the Art (PSITA), and not recognizing the inventive concept embodied in the claimed invention.

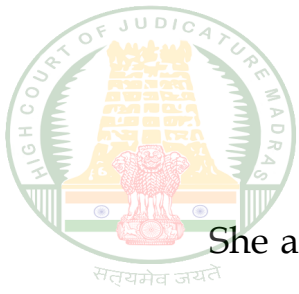
8. Distinguishing the present invention from the cited prior arts, learned counsel submitted that D1 discloses a commanding system



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for computers whereby an input sequence is received from an input device, and the commanding system can be used to connect the input to an associated action. It provides for the features of a user interface to be logically presented as nodes of a hierarchical tree. It does not, however, indicate that two services can be attached to an element that is associated with different applications.

9. She further contended that D1 does not teach or suggest identifying a first command list for the first component that identifies the command list that the first component is registered to receive notifications from and identifying a second command list for the second component that identifies the commands included on the command surface that the second component is registered to receive notifications from. It does not contain any disclosures as to the identification of command lists by polling respective components, and that the first and second components are able to modify their command registration and receive notifications from at least one same user selectable command included on the command surface.



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She also submitted that the prior art is also silent on other functions that the claimed invention performs such as associating a command in each list to the corresponding component; determining when one of the commands included on the command surface is activated; determining when a component should receive a command based on the commands association with a respective component; and the dispatch of such command.

10. As regards D2, she submitted that it discloses a system for providing information to the users of terminals, such as electronic devices, wherein a third party who has illegally acquired the identifying information of a user can be prevented from spoofing by use of another electronic device. Learned counsel contended that like D1, D2 also does not teach or suggest: identifying a command list for the corresponding component that identifies the command list that the component is registered to receive notifications from; disclose the identification of the first and second command list by polling the first and second components; enable components to modify their

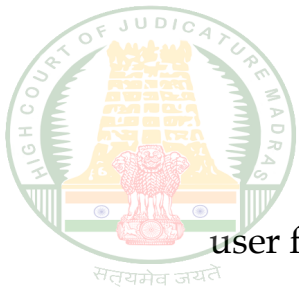


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command registration; or provide for registration of components to receive notifications from at least one same user selectable command included on the command surface.

11. As for D4, learned counsel objected to the inclusion of the prior art in the hearing notice and thereby depriving the appellant of the opportunity to file a detailed reply. Learned counsel submitted that it was a clear violation of the principles of natural justice as the appellant had to deal with the document at the hearing without any written reply.

12. Without prejudice, learned counsel submitted that D4 discloses methods and systems for non-intrusive portlet rendering for printing. She explained that it discloses a portal page on a web page that contains a plurality of portlets, such as a first component associated with the news programmes and a second component associated with the weather programmes. The portal page contains items such as control buttons on each portlet, banner, address bar, menu bar, title bar and window menu which can be selected by a

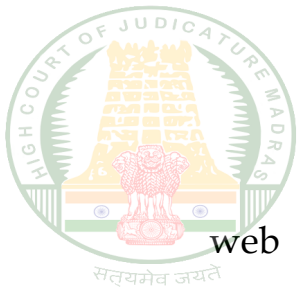


user for performing functionalities or actions.

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13. Learned counsel differentiated the claimed invention from D4 in that the latter fails to disclose identifying a first command list for the first component that identifies the commands included on the command surface that the first component is registered to receive notifications from and identifying the second command list for the second component that identifies the commands included on the command surface that the second component is registered to receive notifications from. It does not contain any teaching/motivation/suggestion for a PSITA to arrive at the claimed invention of associating unrelated components of different applications on a web page with a common command surface.

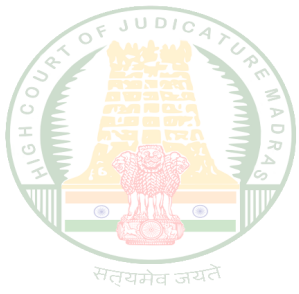
14. In conclusion, she submitted that D4 aims to solve the problems identified in previous portlet printing techniques such as excessive programming, increased end user productivity due to increase in printing time and inability to print specific regions on a



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web page/portal page. These problems are addressed in D4 by providing a portal server which modifies the portal page by rendering an appearance and inserting a print functionality, whereby the portal server sends the modified portal page to the person making the request.

15. In response, learned SPC justified the reliance on Section 3(k) of the Patents Act by arguing that claims 1-8 comprise a command manager for configuration, a command surface - including commands for performing actions, i.e. identifying commands, registration, determining of commands or dispatching - without any hardware limitations, and that this makes the claimed invention non-patentable under Section 3(k). It was also submitted that system claims 9-12 do not involve an inventive hardware system. In effect, it was submitted that the claimed invention does not produce any technical effect or contribution as per the CRI Guidelines 2017 and, hence, is not patentable.



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16. In order to substantiate the contention that the claimed invention lacks inventive step, learned SPC submitted that the combination of teachings of the cited prior art documents, D1, D2 and D4 make the claimed invention obvious to a PSITA. The learned counsel contended that the teachings in D1 and D2 disclose the claimed technical features of the claimed invention, namely, a method of associating a command surface with a first component and a second component on a web page; identifying the first command list for the first component and a second command list for the second component wherein the command lists comprise the commands included on the command surface; associating each of the commands in the first command list with the first component and associating each of the commands in second command list with the second component; determining which of the commands included on the command surface is activated and when the first component would receive the first command and the second component the second



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command; once the above is determined, dispatching the command to the first component for processing; and, likewise, dispatching the command to the second component for processing.

17. More specifically, learned SPC rebutted the appellant's claim that D1 does not disclose the features of the claimed invention, i.e. more than one service being attached to an element of user interface, by referring to two embodiments of a binding table 850a in D1: binding entries with modified or additional functionality for at least some of the input sequences as those provided for in the binding table 810a and the binding entries for input sequences not provided in the binding table 810a. Additionally, he submitted that the command manager is disclosed in D1 as a processor along with a command handler. He contended further that D1 also anticipates and discloses the association of the command surface on the web page to multiple components when the components are unrelated and associated with different applications, through its embodiment, a command handler which can handle all input sequences passed on to the node regardless of the type of input sequence and associating



multiplex events with a given node in the tree 400.

18. With reference to D4, it was submitted that D4 discloses all the features of claims 9-12, namely, the processor, memory, computer-readable medium, operating environment, display and system performing the method steps which are not inventive.

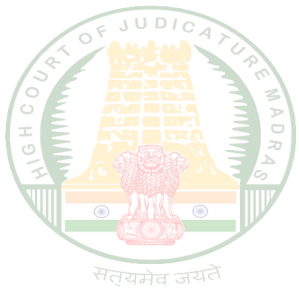
**Discussion, Analysis and Conclusion:**

19. Before dealing with issues regarding patentability and obviousness or lack thereof in the claimed invention, it is pertinent to appreciate the scope of the monopoly claim. Therefore, I set out below the amended claims:

**"I/We Claim:**

1. A method for associating a command surface with active components, comprising:

*associating a command surface on a web page (320) with a first component associated with a first application and with a second component associated with a second application that is unrelated to the first component; wherein the*



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*command surface includes user selectable commands for performing actions;*

*identifying a first command list for the first component that identifies the commands included on the command surface that the first component is registered to receive notifications from and identifying a second command list for the second component that identifies the commands included on the command surface that the second component is registered to receive notifications from, wherein the first and second command list are identified by polling the first and second component respectively to acquire their command lists, wherein the first and second components are able to modify their command registration, wherein the first component and the second component are both registered to receive notifications from at least one same user selectable command included on the command surface (211, 213, 215);*

*associating each of the commands in the first command list with the first component and associating each of the commands in the second command list with the second component (330);*

*determining when one of the commands*



*included on the command surface is activated (410);*

*determining when the first component should receive the command based on the commands being associated with the first component and determining when the second component should receive the command (420) based on the commands being associated with the second component; and*

*dispatching the command to the first component for processing when determined that the first component should receive the command and dispatching the command to the second component for processing when determined (440) that the second component should receive the command.*

2. *The method as claimed in Claim 1, wherein each of the commands in the first command list and the second command list is a global command or a focused command; wherein the global command indicates to dispatch the command regardless of a current focus on a component and wherein the focused command indicates to dispatch the command based on the current focus*

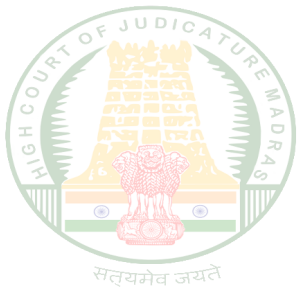


on the component.

3. The method as claimed in Claim 2, comprises determining that the first component is to receive the command when the command is associated with the first component as a global command or a focused command when the first component has the current focus; determining that the second component is to receive the command when the command is associated with the second component as a global command when the first component has the current focus.

4. The method as claimed in Claim 2, comprises changing the current focus in response to receiving a request from either the first component or the second component to change the focus or other code on the web page.

5. The method as claimed in Claim 3, comprises polling the first component before dispatching the command to determine whether the first component is ready to process the command and polling the second component before dispatching the command to determine whether



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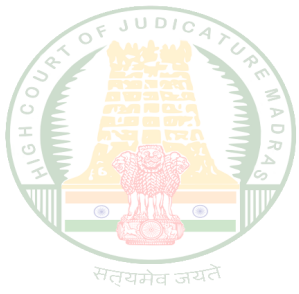
*the second component is ready to process the command.*

*6. The method as claimed in Claim 3, comprises maintaining the commands that have been processed; and when an undo procedure is initiated informing each of components the commands to undo.*

*7. The method as claimed in Claim 1, wherein the first component and the second component can detach an associated command during runtime.*

*8. A system for associating a command surface with components; comprising: a processor (5), a memory (7) and a computer-readable medium (14); an operating system (16) stored on the computer-readable medium and executing on the processor (5);*

*a display that is configured to display a web page that includes a command surface that includes user selectable commands (28); a first component that is associated with a first application (210) and a second component that is unrelated to the first component and is associated*



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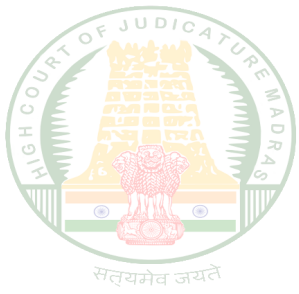
*with a second application (212), wherein the command surface is not directly coupled to either the first component or the second component; and*  
*a command manager (26) that is configured to:*

*receive a registration request from the first component and the second component to associate with the command surface (320);*

*identify a first command list from the first component and a second command list from the second component (330), wherein identifying the first and second command list comprises polling the first and second components to acquire the first and second command lists; wherein the first and second components are able to modify their command registration, wherein the first command list and the second command list comprise commands included on the command surface and include at least one same user selectable command;*

*register each of the commands in the first command list for the first component and register each of the commands in the second command list (330) for the second component;*

*receive a command from the command*



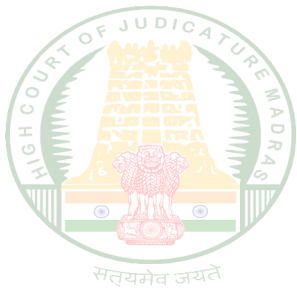
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*surface when activated (410) and determine when the first component should receive the command based on the commands registered for the first component and determine when the second component should receive the command (420) based on the commands registered for the second components; and*

*dispatch the command to the first component for processing when determined that the first component should receive the command and dispatch the command to the second component for processing when determined (440) that the second component should receive the command.*

9. *The system as claimed in Claim 8, wherein the command manager is configured to classify each of the commands in the first command list and each of the commands in the second command list as a global command or a focused command; wherein the global command indicates to dispatch the command regardless of a current focus on a component and wherein the focused command indicates to dispatch the command based on the current focus on the component.*



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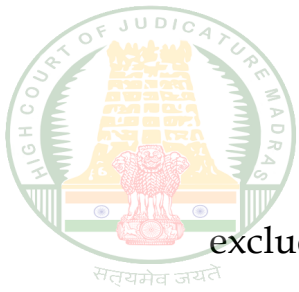


10. *The system as claimed in Claim 8, wherein the command manager is configured, before dispatching the command to the first component for processing, to poll the first component to determine whether the first component is ready to process the command and before dispatching the command to the second component for processing, to poll the second component to determine whether the second component is ready to process the command.*

11. *The system as claimed in Claim 8, wherein the command manager is configured to maintain record of the commands that have been processed; and when an undo procedure is initiated informing each of components the commands to undo."*

**Patent exclusion under Section 3(k):**

20. In the factual context of the above method (claims 1-7) and system (claims 8-11) claims, I first turn to the question whether the claimed invention is a computer programme per se and, therefore,

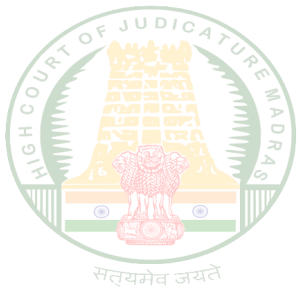


excluded from patent eligibility under Section 3(k) of the Patents Act.

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21. The relevant portion of the impugned order holding that the claimed invention is not patent-eligible is reproduced below:

*“10. With regard to the substantive objection under the header “Non- Patentability u/s 3” of the said hearing notice, the applicant/agent of the applicant has made extensive submissions and the matter has been carefully considered in detail. Without prejudice to the above said, having considered the aforesaid submission, I do not find the submission persuasive in view of following: The subject matter as described and claimed relates to a method for associating a command surface with active components including steps associating a command surface on a web page (320) with a first component associated with a first application and with a second component associated with a second application that is unrelated to the first component: wherein the command surface includes user selectable commands for performing actions, identifying first command list etc as in claim 1. It can be inferred*



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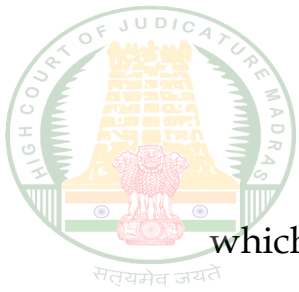


*from the steps as in claim 1; the alleged invention is working at the application layer. The*

*processor is configured to perform the steps of a computer program per se*

*Further The applicant also does not does not talk about the enablement of the alleged invention i.e. exactly how the commands would be associated/disassociated with a particular component. This further point to the fact that the alleged invention assumes that the person implementing the alleged invention would know the fundamentals of computer programming. This therefore is reason enough to believe that the goal of the alleged invention will be achieved by pure software code and the technical effect being argued by the applicant is not beyond the computer program. Hence , the subject matter of claims 1-11 relates to “computer programs per se” and falls within the scope of section 3(k) of The Patents Act,1970 (as amended).”*

22. The tenability of the above conclusions should be tested by examining, interpreting and applying Section 3(k) of the Patents Act,



which reads as below:

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3. *What are not inventions. – The following are not inventions within the meaning of this Act, –*  
*(k) a mathematical or business method or a computer programme per se or algorithms;*

[emphasis supplied]

Section 3(k) deals with four exclusions: (i) a mathematical method; (ii) a business method; (iii) a computer programme per se; and (iv) algorithms. It is of significance to notice that the exclusion with respect to a computer programme in section 3(k) is qualified by the expression “*per se*”, whereas such qualification is not prescribed in respect of the other exclusions. Considering the scope of each exclusion in Section 3(k) may throw some light on the rationale for such exclusion and for the exemption filter “*per se*”, which is appended only to computer programme.

23. The Patents Act does not contain a definition of the terms used in any of the four exclusions, i.e. mathematical method, business method, computer programme or algorithms. The first two



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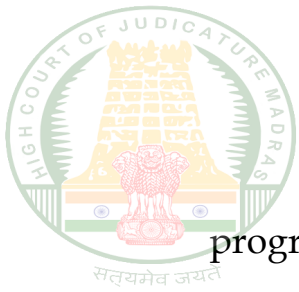
exclusions deal with methods and are intended to form a common sub-set, as indicated by the text “a mathematical or business method” and not 'a mathematical method or business method' or even 'a mathematical or a business method'(i.e. determiners such as 'a' are not used to separate the elements). A mathematical method is a specific approach to resolve a mathematical problem or question and would typically involve a series of steps. Consequently, at the idea or concept level, it would be ineligible for any kind of intellectual property protection. The CRI Guidelines 2017 suggest - and, in my view, correctly - that the mathematical method exclusion is intended to exclude the mere expression of an intellectual exercise, such as a method of calculation, the formulation of equations and the like. By way of illustration, Brent's method in numerical analysis to find the root or the Adams' method of solving differential equations would be excluded. Said Guidelines also clarify - again, correctly - that the mere presence of a mathematical formula in a claim would not necessarily render it 'a mathematical method' claim. What about business method, which is part of the same sub-set? A business



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method is a method of operating a business enterprise or part thereof. Put differently, it is a specific approach to the conduct of business. As in the case of mathematical method, the exclusion is intended to deny patent protection to the expression of an idea. By way of illustration, multi-level marketing or direct marketing would be business methods and the expression of such method in a series of steps in language or code would not be patent-eligible. Subject to being original, as per the Copyright Act, 1957 (the Copyright Act), the form of expression would, however, be entitled to copyright protection. What if a computer related invention (CRI) is used in a business method? In my view, it would not fall within the business method exclusion because the monopoly claim is being sought for the CRI and not for the business method. The patent eligibility of such CRI may, nonetheless, be tested against the computer programme *per se* or algorithms exclusions, and I turn to these exclusions next.

24. Unlike the other exclusions, while computer programme is not defined in the Patents Act, both computer and computer



programme are defined in the Copyright Act, 1957 in Sections 2(ffb)

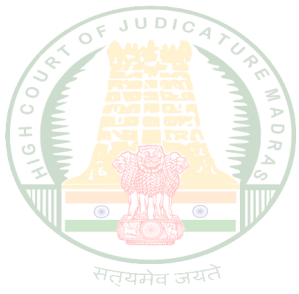
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*“2. Interpretation. – In this Act, unless the context otherwise requires, –*

*(ffb) “computer” includes any electronic or similar device having information processing capabilities”*

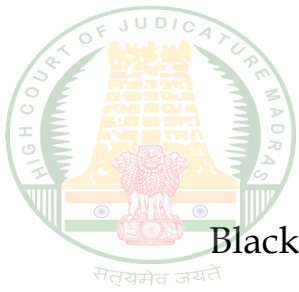
*(ffc) “computer programme” means a set of instructions expressed in words, codes, schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a particular task or achieve a particular result;”*

Like typical definition sections in statutes, the Copyright Act specifies that the definitions are for purposes of that Act. Nonetheless, by taking into account the following: the Patents Act does not define the expression “computer programme”; both statutes deal with intellectual property and, in particular, with computer programmes; the Copyright Act provides for copyright protection for computer programmes; and there is nothing in the Patents Act that indicates that the above definition is inappropriate, I conclude that this definition is applicable in the context of the Patents Act, including for appreciating what computer programme *per se* means.



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25. The last exclusion is of algorithms. An algorithm may be defined as a set of rules or instructions for solving a problem, typically through a sequence of steps or operations. Devising an algorithm would also, therefore, be an intellectual exercise and intellectual property protection would be limited to copyright protection, subject to originality, for the form of expression. While the expression is commonly used in the context of software-based routines in computers, as is evident from the above, it can be used in other contexts. Perhaps on account of the use of this expression most commonly in the context of computers, these two exclusions, i.e. “a computer programme *per se* or algorithms” form a sub-set in Section 3(k). It bears repetition that, out of the four exclusions, the qualifier “*per se*” is appended only to computer programme. The self-evident follow-on question is: what does the word “*per se*” mean and what are the implications of appending this to computer programme? After examining the dictionary meaning of the word, it is instructive to turn to legislative history for guidance as to object and purpose.



Black's Law Dictionary (Thomson Reuters, 11<sup>th</sup> ed., 2019, p. 1378)

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defines '*per se*' as follows:

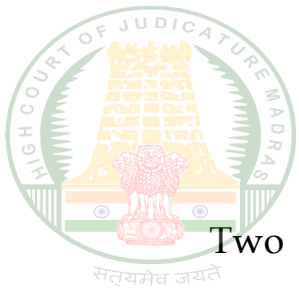
*“of, in, or by itself; standing alone, without reference to additional facts; this phrase denotes that something is being considered alone, and not with other collected things.”*

### **Legislative history**

26. The Joint Parliamentary Committee Report (the JPC Report) in respect of the Patents (Second Amendment) Bill, 1999, which recommended the inclusion of the expression '*per se*', observed as follows:

*“In the new proposed clause (k) the words “per se” have been inserted. This change has been proposed because sometimes the computer programme may include **certain other things, ancillary thereto or developed thereon**. The intention here is not to reject them for grant of patent if they are inventions. However, the computer programmes '**as such**' are not intended to be granted patent. The amendment has been proposed to clarify the purpose.”*

[emphasis added]



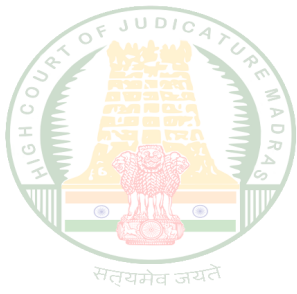
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Two aspects of the JPC Report should be taken note of: something ancillary to or developed on a computer programme is not intended to be excluded from patent protection; and the expression “*per se*” was equated with the expression “as such”. The significance of both these aspects becomes clear on examining precedents both from India and other jurisdictions.

27. The Statement of Objects and Reasons of the Patents (Amendment) Act, 2002, which introduced section 3(k), however, does not shed any further light on the object and purpose of inserting the expression “*per se*”. This was followed by interesting developments. The Patents (Amendment) Ordinance, 2004 (the 2004 Ordinance), which came into force on 01 January 2005, substituted Section 3(k) with the following:

*“(b) for clause (k), the following clauses shall be substituted, namely:-*

*(k) a computer programme per se other than its technical application to industry or a combination*



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*with hardware*

*(ka) a mathematical method or a business method  
or algorithms"*

28. Thereafter, the Patents (Amendment) Bill, 2005 was introduced in Parliament. This Bill contained clauses identical to the above clauses from the 2004 Ordinance. The Statement of Objects and Reasons, which was appended thereto contained, *inter alia*, the following statement as one of its salient features:

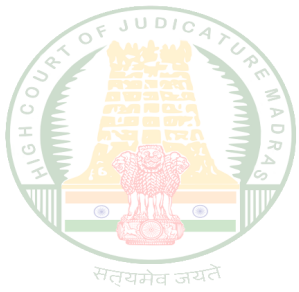
*"iii) to modify and clarify the provisions relating  
to patenting of software related inventions when  
they have **technical application to industry or  
in combination with hardware**"*

[emphasis

supplied]

Clause 3 of the notes on clauses provided, in relevant part, as under:

*"Sub-clause (b) seeks to amend clause (k) of  
section 3 to clarify the provision so as to allow  
software related inventions having technical  
application to industry or in combination with  
hardware as eligible for being patented."*

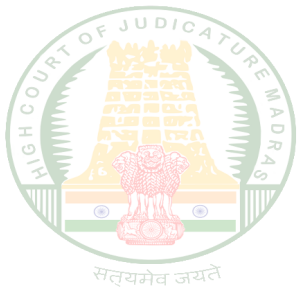


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29. The changes proposed in Section 3(k) were not approved by Parliament and the final text remained untouched after the Patents (Amendment) Act, 2002, which introduced Section 3(k). Indeed, by Press Release dated 23 March 2005 from the Ministry of Commerce and Industry, the reason for omitting the clarification was provided as under:

*"6. It is proposed to omit the clarification relating to **patenting of software** related inventions introduced by the Ordinance as Section 3(k) and 3(ka). The clarification was objected to on the ground that this may give rise to monopoly of multinationals."*

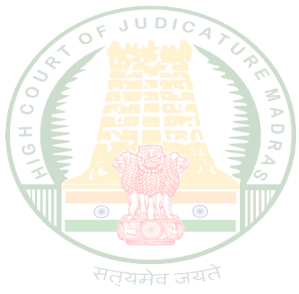
In these circumstances, while the JPC Report retains relevance and materiality, the same cannot be said about the Statement of Objects and Reasons appended to the Patents Amendment Bill, 2005. The upshot of this discussion is that software related patent applications cannot be measured solely against the benchmarks of technical application to industry or combination with hardware. Parliament's intention was clearly not to lower the bar to the extent indicated in the above mentioned Bill.



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**Construing 'computer programme *per se*'**

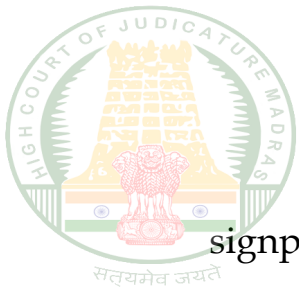
30. Even so, there is sufficient basis in text and legislative history to conclude that Parliament's intention was not to exclude all CRIs from patent eligibility. Indeed, it is reasonable to conclude that the intention was to exempt from exclusion something more than a computer programme, such as something developed on a computer programme but with an impact on the functioning of the hardware/computer. Put more specifically, if it is no more than “*a set of instructions expressed in words, codes, schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a particular task or achieve a particular result*”, it would be patent-ineligible; whereas, if it has an effect that transcends the above benchmark, it becomes patent-eligible. Before drawing conclusions, it is profitable to survey precedents both from India and the United Kingdom.



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31. It is pertinent to recall, at this juncture, that the JPC Report equated the qualifier “*per se*”, when used in relation to computer programme, with “as such” and the latter expression finds place both in the UK Patents Act and the European Patents Convention. In that statutory context, in *Aerotel v. Telco; Macrossan's Application* [2007] RPC 7, the Court of Appeals of England and Wales, laid down the steps to be followed in order to decide whether a claimed invention is patent-eligible: 1) construe the claims, 2) identify actual contribution, 3) examine whether the identified contribution falls exclusively within the excluded subject matter, and 4) if the contribution is technical in nature. In *Symbian Ltd v Comptroller-General of Patents* [2009] RPC 1, the Chancery Division of the High Court examined the implications of the expression “as such” in Article 52(3) of the European Patent Convention, 1973 (the EPC), and construed it as imposing the requirement that the CRI should result in a technical effect for it to be patentable.

32. In *AT&T Knowledge Ventures/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat), the following



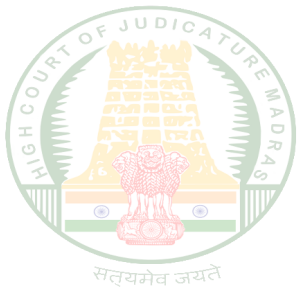
signposts were formulated for identifying 'technical effect':

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- "i) whether the claimed technical effect has a technical effect on a process which is carried on outside the computer;*
- ii) whether the claimed technical effect operates at the level of the architecture of the computer; that is to say whether the effect is produced irrespective of the data being processed or the applications being run;*
- iii) whether the claimed technical effect results in the computer being made to operate in a new way;*
- iv) whether there is an increase in the speed or reliability of the computer;*
- v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented."*

33. The fourth signpost was refined in *Gemstar-TV Guide International Inc v Virgin Media Ltd* [2009] EWHC 3068 (Ch) and reaffirmed in *HTC v Apple* [2013] EWCA 451 as below:

*"It would be a relevant technical effect if the programme made the computer a better computer*



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*in the sense of running more efficiently and effectively as a computer."*

While deciding whether a claimed invention is patent eligible or excluded on the above standards, it is important to be mindful that these are non-exhaustive signposts and not statutory prescriptions. Consequently, they provide guidance but are not intended to be applied rigidly.

34. The patent eligibility of CRIs subject to satisfaction of the above requirements, as elucidated by the English Courts and in European jurisprudence, was endorsed by the Indian judiciary. In *Ferid Allani supra*, it was observed as under:

*"14. Across the world, patent offices have tested patent applications in this field of innovation, on the fulcrum of 'technical effect' and 'technical contribution'. If the invention demonstrates a 'technical effect' or a 'technical contribution' it is patentable even though it may be based on a computer program."* [emphasis added]

35. Furthermore, in *Microsoft supra*, the following was held



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as regards the patentability of CRIs under section 3(k):

*“39....It is possible that the invention **provides a technical solution to a technical problem**, and the computer program use is merely a means to achieve the technical solution. If the subject matter is implemented on a general-purpose computer, but results in a **technical effect that improves the computer system's functionality and effectiveness**, the claimed invention cannot be rejected on non-patentability as “computer program per se.”* [emphasis supplied]

In *Lava International Limited v Telefonaktiebolaget LM Ericsson CS (COMM) 65/2016*, while grappling with claims for revocation of a standard essential patent on grounds of non-patentability under section 3(k), the Delhi High Court observed as below:

*“70. It is clear that an invention should not be deemed a ‘computer programme per se’ merely because it incorporates algorithms and computer-executable instructions. In fact, the patentability should be assessed based on **its practical application in solving technical problems and the technical advancements it offers.***



*Furthermore, if the subject matter is implemented on a general-purpose computer, but results in a further technical effect that improves the computer system's functionality and effectiveness, the claimed invention cannot be rejected as non-patentable for being a 'computer programme per se' [emphasis supplied]*

36. Thus, even when the claimed invention relates to a CRI, if it results in a technical effect that improves the system's functioning and efficacy(effect on hardware), or provides a technical solution to a technical problem and is, therefore, not limited in its impact to a particular application or data set, it would surmount the exclusion under section 3(k) of the Patents Act.

### **Claimed invention and Section 3(k)**

37. As the independent claim recites, the claimed invention processes commands to multiple unrelated applications by



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associating the command surface to more than one component registered to receive commands from the command surface. The command lists are identified by the command surface by polling the components first and each command on the list is associated with the respective component. This enables the outflow of commands to unrelated applications from a single command surface removing the necessity of multiple command surfaces. This technical contribution makes the claimed invention efficacious over conventional systems which require the presence of multiple command surfaces on the web page for processing unrelated applications. Thus, the claimed commanding system is more than a set of instructions in code or any other language and is not limited in impact to a particular application or data set, i.e. it is application/data set agnostic. Put differently, it possesses a 'technical effect' that enhances the system's functionality by processing multiple unrelated applications using the same command surface. This eliminates the need for multiple command surfaces, reduces the use of memory space in the system and augments efficiency. As a result, it is patent-eligible under Section



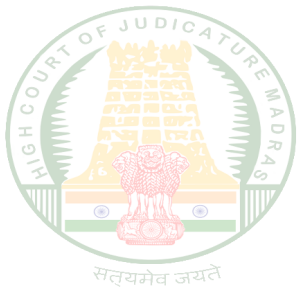
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3(k) of the Patents Act. The respondent also concluded that the claimed invention fails to address 'enablement'. This is not a relevant consideration under Section 3(k) of the Patents Act and, therefore, is not a valid ground for rejection under the said provision. Having concluded that the claimed invention is not excluded from patent eligibility, it remains to be considered if the claimed invention would be obvious to the PSITA.

### **PSITA and obviousness**

38. From the claims set out above, it is clear that the field of invention lies within software and systems engineering; more particularly, commanding systems. Therefore, the PSITA is a software engineer conversant with the functioning of commanding systems and armed with knowledge of hardware systems or a team with such skill set. The relevant portion of the order finding that the claimed invention lacks an inventive step is as follows:

*“9. The cited prior arts;- D1; US2005108734 A1, and D2: US2007209008 A1 and D4: US200700016857 A1. The applicant's oral*



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*submission during the hearing and written submission dated 15.11.2019 in view of the objections cited in hearing notice regarding the inventive step in the alleged invention has been considered but is not fully persuasive. However, in this report document D1-D2 is retained and D4 introduced for the detailed explanation of the obviousness of the amended application. The newly added features introduced are lacking the scope of the original subject-matter of the invention under section 10(5), and hence the amended claims are not inventive under section 2(1) (ja) of IPA 1970 in view to prior documents D1-D2 and D4. The newly added features like identifying, associating of components with applications and registering of components (D2,para 74,86,99,fig-4,6) and command (see D1,para 65-71;attaching the services); and determine the components to receive the command (see D1 para 47-57,61-63) in the amended method claims 1-7. Also D4 discloses the same subject-matter of the amended method claims [see para 8-13,34-35,43-78,fig-4,5,6]. Regarding the amended system claim 8-11, see D4 [para 8-13,60-63], processor, memory, computer-readable medium,operating environment [see para 34-*



35,86-88] ,*"display..." [fig 5,para 43-47, 60-78]* and system performing the method steps which are not inventive. Therefore, the method and system claims are not inventive in view of D1 with D2 and D4. The amended dependent claims 2-7 and 9-11, do not appear to contain any additional features which in combination with the features of any claim to which they refer, meet the requirements of the 2(1)(ja) of Indian Patent Act 1970 with respect to inventive step in view of document D1 in combination with D2 and D4. Hence the subject matter of claims does not meet the requirement of Section 2(1)(j) of The Patents Act 1970."

39. Section 2(1)(ja) of the Patents Act defines 'inventive step' as follows:

*(ja) "inventive step" means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art;*  
"

Thus, as per section 2(1)(ja) of the Patents Act, the first stage in



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inventive step analysis is to determine whether the claimed invention involves any 'technical advance' over the prior arts. As a preliminary step, it is necessary to examine whether the cited prior arts are analogous. Towards that end, it is instructive to examine precedents on determining whether prior art is analogous.

### **Identifying analogous prior arts**

40. *In re Bigio*, 381 F.3d 1320 sets out two separate tests to determine whether a reference qualifies as 'analogous prior art'- (1) the reference is from the same field of endeavour as the claimed invention (even if it addresses a different problem); or (2) the reference is reasonably pertinent to the problem faced by the inventor (even if it is not in the same field of endeavour as the claimed invention). I now examine whether the cited prior arts fall within the above framework.

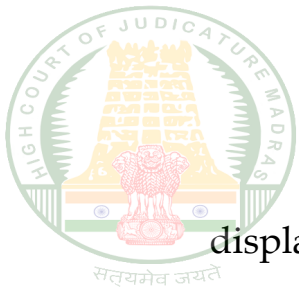
41. D1 is entitled 'Attaching services to commanding elements' and relates to commanding systems for a computer system, and attaching services to commanding elements. As the field of endeavour in D1 is the same as the claimed invention, i.e.,



commanding systems, it qualifies as an analogous prior art.

WEB COPY 42. If the prior art is not within the field of the claimed invention, the second test for analogous art, i.e. whether the reference is “reasonably pertinent” to the particular problem which the claimed invention deals with, calls for consideration. As to what constitutes a 'reasonably pertinent' reference, in *Airbus S.A.S. v. Firepass Corp.*, 941 F.3d 1374, 1382 (Fed. Cir. 2019), it was observed that “a ‘reasonably pertinent’ reference is one that an ordinarily skilled artisan would reasonably have consulted in seeking a solution to the problem that the inventor was attempting to solve.” *Sci. Plastic Prods. v. Biotage AB*, 766 F.3d 1355, 1359 (Fed. Cir. 2014) further elaborated that “a reference is reasonably pertinent if . . . it is one which, because of the matter with which it deals, logically would have commended itself to an inventor’s attention in considering his problem.”

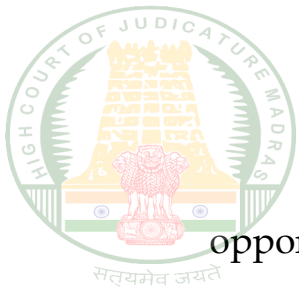
43. D2 entitled 'Portal System' relates to a portal system comprising a portal display screen apparatus and a portal screen display server, in which a specific portal screen is selected and



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displayed based on identification information of the portal screen display apparatus. In conventional systems, while providing information optimized according to users' needs, once users' identification information is leaked, it is difficult to prevent a third party from masquerading using another electronic apparatus. In order to address this problem, in D2, a portal screen optimized by a user is correlated with the identification information of an electronic apparatus used by the user. This clearly shows that the problem envisaged by D2 is different from that of the claimed invention, and D2 would not commend itself to PSITA as prior art that warrants consideration in attempting to associate a single command surface system with multiple components on the web page. Therefore, D2 is not analogous prior art and does not constitute a relevant reference in deciding whether the claimed invention lacks inventive step.

44. Before discussing the relevance of D4, I deal with the appellant's objection that citing D4 in the hearing notice is a violation of principles of natural justice as it deprived the appellant of the



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opportunity to file a detailed reply. The newly cited document D4 was referred to in the hearing notice dated 26/09/2019, and the hearing was fixed on 1/11/2019 thereby giving the appellant more than a month's time to respond to the newly cited document D4. The appellant also responded to D4 both in oral and written submissions at the hearing stage. Because there was sufficient time and adequate opportunity for the appellant to reply to the newly cited prior art, D4 cannot be eschewed in view of principles of natural justice.

45. D4 is entitled 'Method and System for non-intrusive portlet rendering printing'. It relates to an improved data processing system and is directed to a method, apparatus, and computer usable code for printing data in a portlet. When an end user wants to print only the content of an individual portlet rather than the entire browser window, there was no mechanism earlier to enable printing of the content of a single portlet without impacting the state of the portal page and without requiring additional network, portal server and/or programming resources. The existing approaches also imposed



limitations impacting end-user productivity by increasing print time.

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This issue is addressed in D4 by rendering an appearance that includes a print control for each portlet and inserting the print functionality into each portlet contained within the retrieved portal page by the portal server to form a modified portal page which is sent to the requester allowing the end user to print the content of one or more individual portlets contained within the retrieved portal page without using portal server resources. Such a reference would not be considered reasonably pertinent to a PSITA seeking to associate a single command surface system with several components on a web page to send relevant commands to unrelated applications which the claimed invention aims to achieve. Therefore, I conclude that D4 is a non-analogous prior art in the obviousness analysis.

### **Obviousness Analysis**

46. The Windsurfer-Pozolli tests, formulated in *Windsurfing International Inc. v Tabur Marine (GB) Ltd.*, 1985 RPC 59, revised and honed in *Pozzoli Spa v. BDMO SA*, [2006] EWHC 1398 (Ch.), set out



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the principles to be followed while conducting the obviousness analysis and these are: identification of 1) PSITA and the imputation of common general knowledge, 2) the inventive concept that is embodied in the claimed invention, 3) the differences that exist between the cited prior arts and the claimed invention, and 4) whether, without the knowledge of the claimed invention, the differences would have been obvious to the PSITA.

47. The appellant claims that the claimed invention includes the inventive concept of associating the command surface with more than one component on a page, even when the components are associated with different applications rather than being linked to a single component on the web page. This results in sending the command to more than one application for processing.

48. The nature of D1's commanding system can be derived from its claims as set out below:

*"1. A commanding system for a computer,  
comprising:  
a memory storing an input module that*



*accepts input from a device in communication with the computer, a commanding node having a table of bindings that connect the input to associated action, each binding in the table of bindings including a command binding and associated command handler, and a service having a table of service bindings, each service binding in the table of service bindings including a command binding and associated command handler; and*

*a processor in data communication with the memory, the processor programmed to:*

*attach the service to the commanding node,  
receive the input from the input module,*

*pass the input to the commanding node, the commanding node looking up a matching command binding associated with the input in the table of bindings;*

*pass the input to the service, the service looking up the matching command binding associated with the input in the table of service bindings; and*

*invoke a command handler associated with the matching command binding if the matching binding is found in either the table of bindings or the table of service bindings. “*



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49. It follows from the above that the commanding system in D1 envisages a set-up whereby dispersion of an input command from the input devices to the command handlers takes place. The input is communicated to the command handler with the help of a processor that attaches the service to the commanding node, receives input from the input module, passes it on to the commanding node and to the service- both of which associate the input with the matching binding in the table of bindings and service bindings respectively; the binding table in turn consists of binding of entries; the processor further comprises a second commanding node attached to the second service. It solves the problem of requiring to modify the source code for an application and recompiling the application into executable form in order to modify the commanding of an application, by not requiring the service to be part of the executable application or the control elements [para 0071, D1 complete specification].

50. By contrast, the claimed invention embodies a system to disperse commands to different unrelated applications simultaneously using a single command surface, wherein the



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commands are dispersed from the commanding surface, after identifying the command lists, to corresponding components which are then relayed to different unrelated applications. In other words, the command surface of the claimed invention conceives of a system which facilitates the *outflow* of command from the command surface to the intended applications via different components. On the other hand, D1 relates to a system wherein *inflow* of input command to the command handler from the commanding nodes and services takes place, aided by the processor.

51. Although both the systems are designed to receive or send multiple inputs or commands, their nature of operation varies markedly. It would not be obvious to a PSITA imputed with knowledge of D1, which teaches attaching the service to a commanding node consisting of table of bindings and entries through which the input passes and invoking an associated command handler, to arrive at the claimed invention's commanding system wherein multiple components are connected to the



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commanding surface which relays the commands to the relevant components after identifying the command lists with the respective components registered to receive the command. Ultimately, the command reaches the targeted application. Such a commanding system results in a shared command surface that accommodates the functioning of various unrelated applications, a technical advancement which would not be obvious to PSITA. Hence the invention passes the inventive step test under section 2(1)(ja) of the Patents Act, 1970.

52. Hence, (T)CMA(PT) 49 of 2023 is allowed by setting aside the impugned order. For reasons set out above, the claimed invention shall proceed to grant on the basis of amended claims 1-11. There shall be no order as to costs.

**03.07.2024**

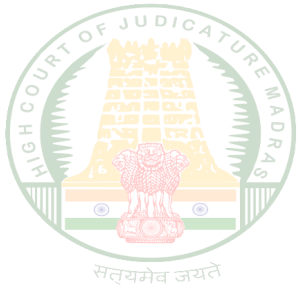
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**SENTHILKUMAR RAMAMOORTHY,J**



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**Pre-delivery judgment made in  
(T)CMA(PT) No.49 of 2023**

**03.07.2024**