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EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ANTON S. McCONVILLE and KENNETH N. WALKER

Appeal 2018-007709
Application 13/928,738
Technology Center 2100

Before JOSEPH L. DIXON, JAMES W. DEJMEK, and
STEPHEN E. BELISLE, *Administrative Patent Judges*.

BELISLE, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants¹ appeal under 35 U.S.C. § 134(a) from a Final Rejection of all pending claims, namely, claims 1, 3–8, and 10–16. App. Br. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ Appellants identify INTERNATIONAL BUSINESS MACHINES CORPORATION as the real party in interest. App. Br. 1.

STATEMENT OF THE CASE

The Claimed Invention

Appellants' invention generally relates to "software development using gestures." Spec. ¶ 2.

In an exemplary method embodiment, the method includes "receiving, in an integrated development environment (IDE), a gesture input through a gesture capture device and matching, using a processor, the gesture input to a selected gesture of a plurality of gestures." Spec. ¶ 3. "Each of the plurality of gestures is mapped to a programmatic action of the IDE." *Id.* The method also includes "determining the programmatic action mapped to the selected gesture and performing the programmatic action mapped to the selected gesture within the IDE." *Id.*

According to the Specification, "[a] gesture that is formed of one touch, e.g., as detected using a gesture capture device, that overlaps in time with at least one other touch is referred to as a multi-touch gesture." Spec. ¶ 28. Thus, according to the Specification, "any gesture involving two or more touches . . . is considered a multi-touch gesture." *Id.*

Also, according to the Specification, "each gesture can be correlated, or associated, with a programmatic action and, optionally, a program code template." Spec. ¶ 44. "Responsive to detecting the gesture during operation of an IDE, e.g., during a session, the programmatic action associated with the gesture inserts the program code specified by the program code template . . . [at an insertion point]," which "can be the location of a cursor or a pointer for the current project." *Id.*

Appellants assert "[i]ncorporating gestures within an IDE allows fast and efficient creation of program code for software development when using

a gesture-enabled device,” such as “a mobile phone or tablet computing device.” Spec. ¶ 20; *see id.* ¶¶ 22–23.

Claim 1, reproduced below, is representative of the claimed subject matter on appeal:

1. A system for developing software, comprising:
a processor programmed to initiate executable operations comprising:
 - receiving, in an integrated development environment, a multi-touch gesture through a gesture capture device;
 - mapping the multi-touch gesture to a programmatic action within the integrated development environment;
 - identifying, around an insertion point associated with the multi-touch gesture, contextual information about the software;
 - and
 - performing the programmatic action within the integrated development environment using the contextual information.

References

The Examiner relied on the following references as evidence of unpatentability of the claims on appeal:

Neill	US 2012/0198419 A1	Aug. 2, 2012
Dias	US 2014/0173563 A1	June 19, 2014
Belisle	US 2014/0331130 A1	Nov. 6, 2014

Rejections

The Examiner made the following rejections of the claims on appeal:

Claims 1, 3–8, and 10–16 stand provisionally rejected on the ground of non-statutory double-patenting as being unpatentable over claims 1–8 of co-pending U.S. Patent Application No. 13/935,607.

Claims 8, 10–14, and 16 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 1, 3, 4, 8, 10, 11, 15, and 16 stand rejected under 35 U.S.C. § 103 as obvious over Dias and Belisle.

Claims 5–7 and 12–14 stand rejected under 35 U.S.C. § 103 as obvious over Dias, Belisle, and Neill.

ANALYSIS²

Provisional Obviousness-type Double Patenting Rejection

Appellants do not respond to the Examiner’s provisional rejection of claims 1, 3–8, and 10–16 under the doctrine of obviousness-type double patenting other than to state: “This rejection is not the subject of the present appeal.” App. Br. 3 n.1. Appellants do not substantively address this provisional rejection in their Appeal Brief or Reply Brief as one of the grounds of rejection to be reviewed on appeal. *See id.* Appellants also have not filed a terminal disclaimer in the subject application or in co-pending U.S. Patent Application No. 13/935,607, which is a continuation of the subject application. In the Examiner’s Answer, however, the Examiner maintained “[e]very ground of rejection set forth in the Final Office Action dated 02/24/2017 from which the appeal is taken,” including this provisional rejection. Ans. 1. Because the rejection is still maintained (i.e., the

² Throughout this Decision, we have considered Appellants’ Appeal Brief filed July 19, 2017 (“App. Br.”); Appellants’ Reply Brief filed July 19, 2018; the Examiner’s Answer mailed May 22, 2018 (“Ans.”); the Final Office Action mailed February 24, 2017 (“Final Act.”); and Appellants’ Specification filed June 27, 2013 (“Spec.”).

Examiner has not withdrawn the rejection), it is still properly before the Board.

Although Appellants do not expressly argue they do not need to address this pending provisional rejection in this appeal, Appellants cite *Ex parte Moncla*, 95 USPQ2d 1884, 1885 (BPAI 2010), purportedly as a basis for unilaterally excluding this pending rejection. *See* App. Br. 3 n.1. However, unlike in *Moncla* where the Board had reversed the Examiner’s rejections under 35 U.S.C. §§ 102 and 103 and affirmed the provisional rejection, herein below we affirm the Examiner’s rejections under 35 U.S.C. §§ 101 and 103. At least in this circumstance, we do not find it premature to address all pending rejections.

To the extent Appellants have not advanced separate, substantive arguments for particular claims or issues, such arguments are considered waived. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2016); *see also Hyatt v. Dudas*, 551 F.3d 1307, 1314 (Fed. Cir. 2008) (“When the appellant fails to contest a ground of rejection to the Board, . . . the Board may treat any argument with respect to that ground of rejection as waived.”). Additionally, “[i]f a ground of rejection stated by the examiner is not addressed in the appellant’s brief, appellant has waived any challenge to that ground of rejection and the Board may summarily sustain it, unless the examiner subsequently withdrew the rejection in the examiner’s answer.” Manual of Patent Examining Procedure (“MPEP”) § 1205.02 (9th ed. Rev. 08.2017, Jan. 2018).

Accordingly, we summarily sustain the Examiner’s provisional rejection of claims 1, 3–8, and 10–16 under the doctrine of obviousness-type double patenting.

Statutory Subject Matter

Appellants argue the Examiner erred in rejecting claims 8, 10–14, and 16 under 35 U.S.C. § 101 as being directed to non-statutory subject matter, and submit these claims “stand or fall together with independent claim 8.” App. Br. 7. Thus, for purposes of our analysis, we select claim 8 as representative of the group, and any claim not argued separately will stand or fall with our analysis of the rejection of claim 8. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2016).

The issue here is whether the scope of claim 8, which recites “a computer readable storage medium,” encompasses transitory signals (as opposed to being limited to non-transitory media). “A transitory, propagating signal . . . is not a ‘process, machine, manufacture, or composition of matter.’ Those four categories define the explicit scope and reach of subject matter patentable under 35 U.S.C. § 101; thus, such a signal cannot be patentable subject matter.” *In re Nuijten*, 500 F.3d 1346, 1357 (Fed. Cir. 2007), *reh’g en banc denied*, 515 F.3d 1361 (Fed. Cir. 2008), *cert. denied*, 555 U.S. 816 (2008). This is a policy of the U.S. Patent and Trademark Office. *See Subject Matter Eligibility of Computer Readable Media*, 1351 Off. Gaz. Pat. Office 212 (Feb. 23, 2010). More recently, a precedential PTAB decision held that, absent disclosure to the contrary in the specification, “those of ordinary skill in the art would understand the claim term ‘machine-readable storage medium’ would include signals *per se*.” *Ex parte Mewherter*, 107 USPQ2d 1857, 1862 (PTAB 2013) (precedential).

Appellants argue the Specification provides a “special definition” for “computer readable storage medium” in claim 8 that “explicitly excludes the

term ‘storage medium’ from encompassing a propagating signal (i.e., a transitory, propagating signal *per se*.)” App. Br. 13; *see id.* at 7–15. But to do so, Appellants also argue the many uses of the term “may” in connection with characterizing “storage medium” in the Specification “must be interpreted as meaning ‘shall, must.’” App. Br. 15; *see id.* at 7–15. Like the Examiner, we find Appellants’ arguments unpersuasive. *See* Ans. 2–12.

Although Appellants are free to redefine terms in their Specification, any such novel definitions must be clearly indicated. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996) (“[W]ords in a claim are generally given their ordinary and customary meaning, [but] a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history.”). In this case, the Specification states, for example: “A computer-readable storage medium *may be, for example, but is not limited to*, an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, or device, or any suitable combination of the foregoing.” Spec. ¶ 11 (emphasis added). The Specification also states the term “computer-readable storage medium” “means a tangible storage medium that contains or stores program code for use by or in connection with an instruction execution system, apparatus, or device,” and provides a “non-exhaustive list” of specific examples thereof that includes “an electrical connection having one or more wires” and “an optical fiber.” Spec. ¶ 11. The Specification further states, “[p]rogram code embodied on a computer-readable medium may be transmitted using any appropriate medium, including but not limited to wireless, wireline, optical fiber, cable, RF, etc.” Spec. ¶ 13. As found by

the Examiner, and we agree, “[t]he effect of this language is to disclose examples that qualify as a ‘computer-readable storage medium’ while explicitly leaving open the possibility that other unmentioned examples may also qualify.” Ans. 7; *see In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (holding that an inventor may define specific terms used to describe an invention, but must do so “with reasonable clarity, deliberateness, and precision” and, if done, “‘must set out his uncommon definition in some manner within the patent disclosure’ so as to give one of ordinary skill in the art notice of the change” in meaning) (*quoting Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387–88 (Fed. Cir. 1992)). The Examiner also found, and we agree:

Appellants explicitly include [as examples of a computer-readable storage medium] “an electrical connection having one or more wires” and/or “an optical fiber”, which . . . are well-known conduits for signals. Said another way, an electrical connection as implemented over a wire when characterized as a storage medium necessarily involves signals, e.g. to transmit information across the wire. An optical fiber functions in a similar manner. Hence, these are explicit examples that Appellants include within the meaning of a “computer-readable storage medium” which cover signals. *That Appellants’ specification provides these types of examples is in and of itself sufficient to support the contention that “computer-readable storage medium” includes signals and therefore render Appellants’ position/argument completely unpersuasive.*

Ans. 7 (emphasis in original).

Furthermore, we find Appellants’ argument here that “may” must not mean “may” but only “must” unpersuasive. App. Br. 15. In short, we agree with the Examiner’s finding that “[e]ven if one definition of ‘may’ is shall/must, there are other definitions of ‘may’ in the English language that are plainly less strict and are more permissive and widely-used.” Ans. 9.

For the reasons discussed *supra*, we find Appellants have not attributed, with reasonable clarity, deliberateness, and precision, any special meaning to “computer readable storage medium,” beyond its ordinary and customary meaning. Based on the Specification as written, we conclude that claim 8 is broad enough to encompass a transitory, propagating signal and is not limited to a tangible medium within one of the statutory classes of 35 U.S.C. § 101. Accordingly, we sustain the Examiner’s rejection of claims 8, 10–14, and 16, all of which were argued together as a group, as noted above.

We note that Appellants are not precluded from amending the subject claims to overcome the pending Section 101 rejection. Guidance on this point is provided in U.S. Patent and Trademark Office, *Subject Matter Eligibility of Computer Readable Media*, 1351 Off. Gaz. Pat. Office 212 (Feb. 23, 2010) (“A claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. § 101 by adding the limitation ‘non-transitory’ to the claim.”).

Obviousness

Appellants argue the Examiner erred in rejecting claims 1, 3–8, and 10–16 as obvious under 35 U.S.C. § 103. *See* App. Br. 16–26; Reply Br. 2–8. Appellants submit claims 3–8 and 10–14 “stand or fall together” with independent claim 1, and claim 16 “stands or falls together” with dependent claim 15. App. Br. 16, 26. Thus, for purposes of our analysis, we select independent claim 1 and dependent claim 15 as representative claims, and

any claim not argued separately will stand or fall with our analysis of the rejections of claims 1 and 15. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Independent Claim 1

Appellants make three patentability arguments regarding independent claim 1: (1) Dias and Belisle do not teach “mapping” a gesture to a programmatic action (App. Br. 16–20); (2) Belisle is non-analogous art (App. Br. 20–21); and (3) there is no motivation to combine Belisle with Dias (App. Br. 21–22). We find Appellants’ arguments unpersuasive, as explained below.

(1) Mapping: Claim 1 recites, in relevant part, “*mapping* the multi-touch gesture to a programmatic action within the integrated development environment.” Appellants argue “Dias does not teach mapping a gesture to a programmatic action. Instead, the programmatic actions are mapped to individual locations that each correspond to a different code solution 604a, 604b.” App. Br. 17. Appellants also argue “Belisle suffers from the same problem in that it does not describe a mapping between a particular multi-touch gesture to a particular programmatic action within the integrated development environment.” App. Br. 19.

As a preliminary matter, we must first construe the term “mapping.” Although Appellants assert the Examiner “has not explicitly construed” mapping, neither do Appellants submit an explicit construction of “mapping,” but for arguing Dias and Belisle do not teach “mapping.” *See* App. Br. 18–19. In the Answer, the Examiner proffered: “In its ordinary and customary meaning, a mapping is merely an association. As generalized, the concept of a mapping is such that if X is mapped to Y, then X and Y are associated by way of the mapping.” Ans. 12 (emphasis

omitted). Like the Examiner, we construe “mapping” to mean “correlating or associating,” consistent with the Specification. *See, e.g.*, Spec. ¶ 44 (“each gesture can be *correlated, or associated,* with a programmatic action;” “FIG. 3-1 illustrates an example in which a gesture is *associated* with a programmatic action;” and “the programmatic action *associated* with the gesture”) (emphases added); Spec. ¶ 19 (“the programmatic action that is performed utilizes the program code template *associated* with the detected gesture”) (emphasis added); *see also, e.g.*, Spec. ¶¶ 30, 34, 35, 47, 50, 52, 55, 56–59, and 64 (“associated”). Next, we turn to the teachings of Dias and Belisle.

Dias is generally directed to methods, systems, and computer program products for inferring the programming intent of code developers to suggest code solutions, as illustrated, for example, in Dias’s Figure 6, reproduced below. *See* Dias ¶¶ 6, 59; Abstract.

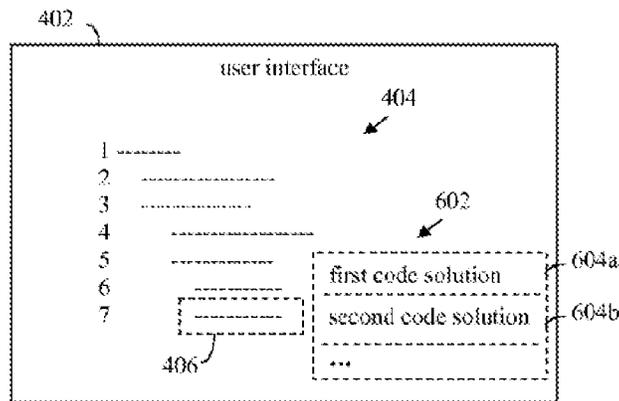


FIG. 6

Figure 6 of Dias shows a block diagram of user interface 402 displaying selectable code solutions 602, according to an exemplary embodiment. Dias ¶ 59. More specifically:

Selectable code solutions 602 are displayed as code solutions for line of code 406, as determined by program code suggestion system 110 (FIG. 1) and provided in code solution(s) 116. As shown in FIG. 6, selectable code solutions 602 includes a first code solution 604a, a second code solution 604b, and potentially further code solutions. Each code solution of selectable code solutions 602 is *enabled to be selected* by the developer (e.g., using a mouse click, *a key combination, a gesture applied to a touch screen or other gesture interface, voice, etc.*) to be inserted into program code 404.

Dias ¶ 59 (emphases added).

Dias also teaches that the user device 102, which includes the user interface 402, “may be any type of stationary or mobile computing device, including . . . a tablet computer (e.g., an Apple iPad™, a Microsoft Surface™, etc.), . . . [and] a mobile phone (e.g., a smart phone such as an Apple iPhone[]).” Dias ¶ 45. Dias further teaches “the [user] may be enabled to use *a key combination (or other user interface interaction) to change the contents of code solutions 602* to cycle through different platform APIs and/or other code solution variations” Dias ¶ 60 (emphasis added).

Belisle is generally directed to “a computing device displaying content related to the functionality of control elements of a user interface within a moveable interactive element.” Belisle ¶ 1. An exemplary embodiment includes a moveable interactive element (e.g., a pop-up box) that can be dragged and moved onto control elements (e.g., graphical user interface elements like buttons and icons) to display information about the functionality of the control elements, allowing a user to learn about what a particular control element does without selecting it. Belisle ¶¶ 19–21; Abstract. Upon receiving an initial touch input, the moveable interactive

element is displayed in the user interface. Belisle ¶¶ 19–21. The interactive element may be dragged onto a control element and may become associated with that control element. Belisle ¶¶ 20, 21. Content related to the functionality of the control element may be determined and displayed within the interactive element. Belisle ¶ 21.

Belisle teaches “[m]any computing devices include a touchscreen interface that can detect physical contact from a user of the device and perform a corresponding action.” Belisle ¶ 3. Belisle continues:

For instance, some computing devices can detect when a user has provided a particular gesture (*e.g., using one or more of the user’s fingertips*) on a touchscreen user interface, such as a single-tap, double-tap, drag, swipe, pinch, flick, rotation, *multi-touch gesture*, and the like. *Upon receiving a gesture, such computing devices can generate an event corresponding to the gesture which may cause an application running on the device to perform a particular action.*

Belisle ¶ 3 (emphases added); Belisle ¶ 30; *see id.* ¶ 48 (“touch input may correspond to one or more gestures, such as a drag, swipe, pinch, flick, single-tap, double-tap, rotation, multi-touch gesture, and/or the like”).

Belisle further teaches that the disclosed system “may be part of a portable communications device, such as a mobile telephone, a smart phone, or a multifunction device,” including “the iPhone®.” Belisle ¶ 47. Belisle explains that the disclosed interactive element “may be used to provide content related to the functionality of control elements for any suitable application,” such as “*source code editors, database query tools, command line interpreters, and the like.*” Belisle ¶ 28 (emphasis added).

The Examiner finds:

Dias makes clear that a gesture is received, e.g. to select a code solution. Hence, it is fair to say that the input of the gesture causes or results in [or is correlated or associated with] selection of the code solution, e.g. for insertion into the software product. Said another way, the gesture as an input is mapped to one or both of the selection result or the insertion result, where either result may be considered a “programmatic action.”

Ans. 14. Appellants argue, *inter alia*, Dias teaches mapping individual locations to programmatic actions, not mapping gestures to programmatic actions. App. Br. 17; Reply Br. 2–4. But we find Dias’s teachings are not so limited.

For example, as explained by the Examiner (Ans. 14), Dias discloses each code solution of selectable code solutions 602 is “enabled to be selected” by the developer to be inserted into program code 404, and may be selected “using a mouse click, a key combination, a gesture applied to a touch screen or other gesture interface, voice, etc.” Dias ¶ 59. This teaches, *inter alia*, code solutions enabled to be selected and inserted into program code using a key combination, gesture, or voice—these selection techniques do not merely involve mouse-clicking a particular location on the screen. Rather, the disclosure of enabling selection by “voice” in turn teaches an association (i.e., mapping) between a voice command and the selection and insertion of a code solution. Likewise, the disclosure of enabling selection by “key combination,” which we find akin to a multi-touch gesture, in turn teaches the same type of association and mapping between a key combination and the selection and insertion of a code solution (e.g., pressing “Control”-“Alt”-“Delete” on a keyboard uses three fingers, which if done on a touchscreen keyboard would effectively be a multi-touch gesture). Given

these teachings in Dias, we find Dias’s disclosure of enabling selection of code solutions using “a gesture applied to a touch screen or other gesture interface” (Dias ¶ 59), teaches associating (i.e., mapping) such a gesture with the selection and insertion of a code solution (i.e., programmatic actions³).

Accordingly, we agree with the Examiner that Dias teaches or fairly suggests mapping a gesture to a programmatic action within an integrated development environment. *See In re Burckel*, 592 F.2d 1175, 1179 (CCPA 1979) (“[A] reference must be considered not only for what it expressly teaches, but also for what it fairly suggests.”).

In addition, the Examiner also finds: “Even if the primary reference Dias is somehow construed to not teach a mapping, the Examiner respectfully submits that Belisle provides an express teaching of a gesture and event correspondence, i.e. a mapping, and one that results in the performance of a particular function, i.e. ‘a programmatic action.’” Ans. 18. Appellants argue “Belisle does not necessarily teach that a particular multi-touch gesture is mapped to a particular programmatic action, as claimed since the same gesture can lead to different functionality.” App. Br. 20. As a preliminary matter, Appellants’ argument here lacks merit, as it is based on limitations not found in independent claim 1, namely, the feature of a “one-

³ The Specification states: “A programmatic action is a set of one or more operations or tasks that are pre-defined, and available within, an application. As such, a programmatic action is performed by a processor responsive to a gesture input. The programmatic action may utilize or include operating system operations.” Spec. ¶ 33. Like the Examiner, we find both the selection and the insertion of code solutions to be pre-defined operations or tasks performed by a processor responsive to input. *See* Ans. 14.

to-one correspondence between the gesture and a resulting programmatic action” (Reply Br. 3). Regardless, the following express disclosure of Belisle belies Appellants’ position: “Upon receiving . . . a gesture, computing device 100 can generate an event corresponding to the gesture which may cause an application running on the device (e.g., the photo application of FIG. 1) to perform a particular function.” Belisle ¶ 30. We again agree with the Examiner, and find at least this disclosure in Belisle teaches or fairly suggests mapping a gesture, including “multi-touch gestures” (Belisle ¶ 30), to a programmatic action. *A fortiori*, we find the combination of Dias and Belisle teaches or fairly suggests the limitation at issue.

(2) Analogous Art: Appellants do not dispute that Dias is analogous art in this case (Reply Br. 5), but do challenge Belisle (App. Br. 20). Specifically, Appellants argue “the claimed invention and Belisle are not within the same field of endeavor” (App. Br. 20), and dispute the Examiner’s finding that “Dias and Belisle both relate to the onscreen manipulation of content, e.g. as might be done using a code editor/IDE” (Final Act. 8). Appellants argue that, “[e]ssentially, the Examiner has argued that any reference that includes a graphical user interface (i.e., an interface that permits one to interact/manipulate with a data structure/content stored within the computer) is within the field of endeavor,” and that “[t]his alleged field is unreasonably broad.” App. Br. 21. Appellants argue “[t]he field of endeavor of the claimed invention is associated with software development and more particularly is associated with an integrated development environment.” App. Br. 21. Appellants contend that “Belisle . . . is within the field of graphical user interfaces having dynamically

moveable control elements,” and therefore, “is nonanalogous prior art that cannot be properly applied against the claimed invention.” App. Br. 21.

In the Answer, the Examiner explains: “[T]he Examiner’s rationale expressly accounts for code editors/IDEs . . . , since the relied-upon prior art references do in fact contemplate implementations that are relevant to software development. For example, . . . Belisle’s [0028] expressly discussing the use context of ‘source code editors,’ which is squarely situated within the subject matter area of software development.” Ans. 21. Appellants respond in a conclusory manner: “a single mention (within the entirety of Belisle) of a ‘source code editor’ within a laundry list of disparate applications . . . does not transform the field of endeavor to which Dias is directed.” Reply Br. 5–6. We find Appellants’ arguments unpersuasive.

Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor’s endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved. *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). We are mindful that the Supreme Court’s decision in *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 402 (2007), directs us to construe the scope of analogous art broadly, stating that “familiar items may have obvious uses beyond their primary purposes, and a person of ordinary skill often will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *See Wyers v. Master Lock Co.*, 616 F.3d 1231, 1238 (Fed. Cir. 2010).

In reviewing Appellants’ Specification and claims, we find the claimed invention is directed to software development using gestures. *See*

Claims 1 and 8; Spec. ¶ 18 (“This specification relates to using gestures for software development.”). Appellants’ invention receives gestures through gesture capture devices, maps the gestures to programmatic actions or program code templates, and inserts program code (e.g., source code) into software under development using a system for developing software. *See, e.g.*, Claims 1, 3, and 4; Spec. ¶ 20. In doing so, according to the Specification, such software development systems and gesture capture devices may be “any of a variety of devices that support gestures,” including “a mobile phone or tablet computing device.” Spec. ¶ 20. According to Appellants, “[i]ncorporating gestures within an IDE allows fast and efficient creation of program code for software development when using a gesture-enabled device.” Spec. ¶ 20.

Belisle discloses structure similar to Appellants’ claimed invention, namely, “a portable communications device, such as a mobile telephone, a smart phone, or a multifunction device,” including “the iPhone®.” Belisle ¶ 47; *see, e.g.*, Spec. ¶ 20 (“mobile phone”). Belisle discloses functions similar to Appellants’ claimed invention, such as using gestures, including multi-touch gestures, received through touchscreens, generating events corresponding (i.e., mapped) to such gestures, and causing applications running on the mobile phone, for example, to perform particular functions. Belisle ¶ 30; *see, e.g.*, Spec. ¶¶ 18–20. Belisle also discloses an application similar to Appellants’ claimed invention: “An interactive element as described in [Belisle] may be used *to provide content* related to the functionality of control elements *for any suitable application*,” which “may include, without limitation, . . . *source code editors*.” Belisle ¶ 28 (emphases added); *see, e.g.*, Spec. ¶ 20 (“source code”).

Based on the structural and functional similarities between Appellants' claimed invention and Belisle, we find one of ordinary skill in the art would have considered Belisle within the same field of endeavor as Appellants' claimed invention. We also observe that both Appellants' claimed invention and Belisle are classified by the U.S. Patent and Trademark Office in U.S. Patent Classification Class 715 (defined as "Data Processing: Presentation Processing of Document, Operator Interface Processing, and Screen Saver Display Processing"). *Compare* U.S. Patent Publication No. US 2015/0007118 A1, pub. Jan. 1, 2015, *with* Belisle; *see In re Ellis*, 476 F.2d 1370, 1372 (CCPA 1973) (Although Patent Office classification of references and the cross-references in the official search notes of the class definitions are "*some* evidence" of "nonanalogy" or "analogy" respectively, the court has found "the similarities and differences in structure and function of the inventions to carry far greater weight."). Accordingly, we find Belisle is analogous art in this case.

For completeness, we also find that Belisle is reasonably pertinent to Appellants' problem or objective of mapping multi-touch gestures to programmatic actions. Prior art is "reasonably pertinent" when it would "logically . . . commend[] itself" to an inventor's attention in considering his problem. *In re Icon Health & Fitness, Inc.*, 496 F.3d 1374, 1379–80 (Fed. Cir. 2007) (citing *In re Clay*, 966 F.2d 656, 658–59 (Fed. Cir. 1992)). The Examiner found Dias teaches all aspects of claim 1, but "does not expressly disclose or render obvious that a gesture is a **multi-touch gesture** as claimed." Final Act. 8. However, the Examiner found that the feature of using "multi-touch gestures" versus "gestures" "is well-known in the art," and relied on Belisle to show the well-known aspect of receiving multi-touch

gestures through a gesture capture device. Final Act. 8; Ans. 15 (“[W]hile Dias simply teaches that gestures may be used, Belisle more expansively teaches that many gestures are capable of use, and expressly provides that a ‘multi-touch gesture’ may be used.”). Given Appellants’ problem or objective of mapping multi-touch gestures received via smart phones to programmatic actions, we find Belisle, which likewise receives multi-touch gestures that perform actions or programmatic actions through smart phones, would logically have commended itself to one of ordinary skill in the art considering Appellants’ problem or objective.

(3) Motivation to Combine: The Examiner found it would have been obvious to a skilled artisan to:

modify Dias to include the gesture type as claimed and as contemplated by Belisle for purposes of providing [an] opportunity to enrich Dias’s UI to allow for many different types of gestures as contemplated by Belisle [sic], e.g. [0030], and hence many different types of corresponding commands – as a means to provide ease-of-use benefits / shortcuts.

Final Act. 8–9. Appellants argue the “Examiner’s analysis is no more than the Examiner repeating the limitations at issue as the ‘rational underpinning,’” and “[i]n essence, the Examiner is merely arguing that it would have been obvious to include ‘X’ for the purpose of having ‘X.’ This is not a rational underpinning – it is circular reasoning.” App. Br. 21–22.

In the Answer, the Examiner clarifies the motivation to combine:

Dias contemplates a GUI framework where gestures are but one feasible mechanism for input, e.g. in addition to [other] well-known alternatives such as mouse, keyboard, voice, etc. Hence, Dias plainly contemplates that inputs may be provided in a manner of different ways, but as pertaining to gestures does not go so far as to describe all the possible types of gestures that may

be used. That said, one of ordinary skill in the art would recognize that various gestures are capable of use. For example, some well-known and widely-practiced gestures include tapping, swiping, pinching in, pinching out, and so forth. Belisle contemplates a similar framework where gestures may be used, and proceeds to provide a more rich description, see e.g. [0003] and [0042] and [0061] which provide a listing of different gesture types. Contrary to Appellants' belief, the Examiner contends that a framework that can recognize a larger input set thereby allows for a more expressive UI experience, e.g. one that more readily allows a user to enter a greater number of commands and so forth. This is an obvious benefit, and one that the Examiner was relying upon.

Ans. 21. Appellants respond, *inter alia*, that Dias “does not mention multiple gestures or explain a need for multiple gestures.” Reply Br. 7. Appellants further respond that the Examiner’s stated motivation “is not based upon the teachings of the applied prior art,” but “this benefit is pulled out of thin air.” Reply Br. 7. We find Appellants’ arguments unpersuasive.

The Court has held the relevant inquiry in an obviousness analysis is whether the Examiner has set forth “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (cited with approval in 550 U.S. at 418). Additionally, “[m]otivation to combine may be found in many different places and forms.” *Allergan, Inc. v. Sandoz Inc.*, 726 F.3d 1286, 1292 (Fed. Cir. 2013); *see also Alza Corp. v. Mylan Labs., Inc.*, 464 F.3d 1286, 1294 (Fed. Cir. 2006) (stating that the motivation to combine does not have to be explicitly stated in the prior art).

In this case, Dias discloses each code solution of selectable code solutions 602 is “enabled to be selected” by the user to be inserted into program code 404, and may be selected “using a mouse click, *a key*

combination, a gesture applied to a touch screen or other gesture interface, voice, etc.” Dias ¶ 59 (emphasis added). We agree with the Examiner that “Dias plainly contemplates that inputs may be provided in a manner of different ways.” Ans. 21. In addition, as discussed above under “Mapping,” Dias’s disclosure of enabling selection by, for example, “voice” or “key combination” in turn teaches a mapping between those inputs and the selection and insertion of a code solution. As such, we agree with the Examiner that “one of ordinary skill in the art would recognize that various gestures are capable of use” in Dias (Ans. 21), including multi-touch gestures, and that incorporating various multi-touch gestures would “enrich Dias’s UI to allow for many different types of gestures . . . and hence many different types of corresponding commands – as a means to provide ease-of-use benefits/shortcuts” (Final Act. 8–9). Thus, we are unpersuaded of error in the Examiner’s stated reason and rationale for combining Dias and Belisle.

For the reasons discussed *supra*, we sustain the Examiner’s rejection of independent claim 1, as well as claims 3–8 and 10–14 that “stand or fall together” with independent claim 1, under 35 U.S.C. § 103. *See* App. Br. 16, 26.

Dependent Claim 15

Claim 15 requires that the “mapping” includes “identifying the multi-touch gesture from a plurality of different multi-touch gestures” and “selecting, from a plurality of different programmatic actions respectively associated with the plurality of different multi-touch gestures, the programmatic action based upon the identified multi-touch gesture.” App. Br. 32 (Claims Appendix). Appellants again argue Belisle and Dias do not

teach “mapping” (App. Br. 23–24; Reply Br. 8), which we find unpersuasive for the reasons discussed above regarding independent claim 1. Appellants also argue “Belisle does not teach a plurality of different multi-touch gestures or that these multi-touch gestures are respectively associated with a plurality of different programmatic actions.” App. Br. 24. We find Appellants’ arguments unpersuasive and belied by the teachings of Belisle.

For example, as cited by the Examiner, Belisle discloses:

The touchscreen displaying user interface 102 may be configured to detect physical contact from the user of computing device 100 such as a user-provided gesture (e.g., a single-tap, double-tap, drag, swipe, pinch, flick, rotation, *multi-touch gestures*, and the like). *Upon receiving such a gesture, computing device 100 can generate an event corresponding to the gesture which may cause an application running on the device . . . to perform a particular function.*

Belisle ¶ 30 (emphases added); *see* Final Act. 10–11 (citing Belisle ¶ 30).

Belisle also discloses that “touch input may correspond to one or more gestures,” including “multi-touch gesture[s].” Belisle ¶ 48; *see* Ans. 22 (citing Belisle ¶ 48). This disclosure of a plurality of gestures and generating an event “corresponding” to a received gesture that causes an application to perform “a particular function” teaches or fairly suggests recognizing a particular multi-touch gesture and selecting the programmatic action corresponding to that gesture. *See In re Burckel*, 592 F.2d at 1179. Accordingly, we find the combination of Dias and Belisle teaches or fairly suggests the limitations of dependent claim 15.

For the reasons discussed *supra*, we sustain the Examiner’s rejection of dependent claim 15, as well as claim 16 that “stands or falls together” with dependent claim 15, under 35 U.S.C. § 103. *See* App. Br. 16.

DECISION

We summarily affirm the Examiner's decision provisionally rejecting claims 1, 3–8, and 10–16 under the doctrine of obviousness-type double patenting.

We affirm the Examiner's rejection of claims 8, 10–14, and 16 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

We affirm the Examiner's obviousness rejections of claims 1, 3–8, and 10–16.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 41.50(f).

AFFIRMED