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**UNITED STATES DISTRICT COURT**

**SOUTHERN DISTRICT OF CALIFORNIA**

PARK ASSIST, LLC,

Plaintiff,

v.

SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY and ACE PARKING MANAGEMENT, INC.,

Defendants.

Case No. 3:18-cv-02068-BEN-MDD

**MEMORANDUM OF POINTS AND AUTHORITIES IN SUPPORT OF SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY'S MOTION TO DISMISS AMENDED COMPLAINT UNDER 35 U.S.C. § 101**

Date: December 10, 2018
Time: 10:30 a.m.
Ctrm: 5A
Judge: Hon. Roger T. Benitez

Demand for Jury Trial

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Park Assist, LLC alleges infringement of U.S. Patent No. 9,594,956 (the "'956 patent"), which is directed to gathering, analyzing, and transmitting information about occupancy status and permits in a parking lot. But, under well-established Supreme Court and Federal Circuit law, claims directed to the abstract idea of processing information are not eligible for patenting under 35 U.S.C. § 101, and the '956 patent claims lack any transformative element that creates patentable subject matter. The Court should invalidate the claims of the '956 patent and dismiss the Amended Complaint with prejudice.

## I. INTRODUCTION

For more than 150 years, courts have recognized that abstract ideas fall within a judicial exception to § 101 of the Patent Act and cannot be patented. Within the last decade, a series of Supreme Court decisions—*Bilski*, *Mayo*, and *Alice*—radically changed the application of this exception. No longer can patentees obtain claims directed to abstract ideas, like the analysis of information, simply by reciting generic machines or computers in their claims.

The '956 patent is a prime example of unpatentable subject matter under this Supreme Court authority: claims that use generic computer components to carry out the gathering, storage, analysis, and transfer of information. In this case, the information is used for the mundane tasks of determining whether there is a car in a parking space, whether the space is properly designated as occupied, and whether that car has a permit for that space—which humans have done in their minds, and with pen and paper, for years. The '956 patent is also a prime example of a patentee attempting to use the "draftsman's art" of reciting computer processing to circumvent the requirements of § 101. While Park Assist, LLC ("Park Assist") successfully used this drafting technique to escape § 101 rejections during prosecution of its patent, the Supreme Court's *Alice* decision, and numerous Federal Circuit decisions since then, expressly condemn Park Assist's strategy. The Court should apply this established law and rule that the claims of the '956

patent are ineligible under § 101.

## II. BACKGROUND

### A. The Parties

This motion should be resolved based on the pleadings and materials incorporated therein. *See Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018). The San Diego County Regional Airport Authority ("SDCRAA") provides this brief background of the parties solely to furnish context for the Court.

#### 1. The San Diego County Regional Airport Authority

SDCRAA is an independent agency that was created in 2003 to operate the San Diego International Airport, plan for the future air transportation needs of the region, and serve as the region's Airport Land Use Commission. Following the extensive renovation of Terminal 2, SDCRAA requested bids for the construction of a roughly 2,900-space parking plaza adjacent to Terminal 2. This project was completed in stages beginning in approximately May 2018. SDCRAA did not directly manage the construction of the Terminal 2 parking plaza, nor did it directly select the vendors, subcontractors, or parking systems for the plaza.

Among other technology systems in the Terminal 2 parking plaza is an INDECT parking guidance system that provides counts of available spots in various sections of the parking plaza and also provides LED indicators over groups of spots to alert drivers to available parking spaces. The INDECT parking guidance system in the parking plaza works autonomously, without user/operator review of parking space occupancy. The INDECT parking guidance system in the parking plaza has no interaction with vehicle permits, nor are there currently any permit- or preferred parking-based parking spaces in the parking plaza. SDCRAA does not operate the parking plaza or the INDECT parking guidance system. (*See* ECF No. 1 ¶ 17 ("On information and belief, SDCRAA has contracted and entered into an agreement with Ace Parking to operate the Airport Parking System.").)

**2. Ace Parking Management, Inc.**

Ace Parking Management, Inc. ("Ace") is a vendor for SDCRAA. Ace provides management and operations services for all SDCRAA-owned parking lots at the San Diego International Airport, including the Terminal 2 parking plaza. Ace has no access to the INDECT parking guidance system, no way to view images captured by the system, and no regular interaction with the system.

**3. Park Assist, LLC**

Park Assist, a subsidiary of the Dutch corporation TKH Group NV (ECF No. 3), sells parking guidance systems. Park Assist submitted a bid for the installation of its parking system to the Terminal 2 parking plaza general contractor, but lost the contract to the INDECT parking system. (*See* ECF No. 23 ¶ 32.)

**B. The '956 Patent**

The '956 patent issued on March 14, 2017, based on a PCT application filed on May 8, 2011. (ECF No. 23-1.) It is entitled "Method and System for Managing a Parking Lot Based on Intelligent Imaging." (*Id.*) The patent's abstract provides the following description of the invention:

> To manage a plurality of parking spaces, one or more images are acquired, with each parking space appearing in at least one image. Periodically acquired images of occupancy and identity are used in directing a customer to a parked vehicle. Periodically acquired images of just occupancy are used in controlling respective environmental aspects, such as illumination and ventilation, of the parking spaces. For these purposes, the images are classified automatically as "vacant" or "occupied", and are displayed along with their classifications so that the classifications can be corrected manually. (*Id.*)

The issued claims of the '956 patent, however, have nothing to do with "directing a customer to a parked vehicle" or "controlling respective environmental aspects" of parking spaces as recited in the Abstract. (*Id.* at Claims 1-2.) The

claims relate only to ensuring the occupancy indicator (a multicolor light) for a parking spot is accurate and that vehicles have the required permit to park in specified spots.

### 1. The Claims of the '956 Patent

The '956 patent has just two claims: independent claim 1 and dependent claim 2. Independent claim 1 requires the following:

> 1. A method of managing a plurality of parking spaces, comprising:
> (a) monitoring a parking space with an imaging device of an imaging unit;
> (b) detecting, by said imaging unit, occupancy of said parking space;
> (c) assigning said parking space, in which said occupancy was detected, an occupied status, wherein said occupied status is indicated by illuminating a first color of a multicolor indicator collocated with said imaging device, said first color predefined to determine said occupied status;
> (d) obtaining, as a result of said parking space having said occupied status, a single high resolution image of a vehicle occupying said parking space, said high resolution image obtained by said imaging device;
> (e) storing at least part of said high resolution image on a storage device;
> (f) displaying a thumbnail image of said parking space on a graphic user interface (GUI), said thumbnail image digitally processed from an image electronically communicated to said GUI from said imaging unit;
> (g) deciding whether said occupied status is incorrect, based on a visual review of said thumbnail image on said GUI;
> (h) correcting said occupied status, by inputting computer-readable instructions to a computer terminal of said GUI, if said parking space shown in said thumbnail image is vacant and said computer terminal electronically communicating a command to toggle said multicolor indicator to illuminate a second color, said second color predefined to indicate a vacant status;

> (i) extracting from said high resolution image, by digital image processing, a permit identifier for said vehicle and comparing said permit identifier with at least one parking permit identification stored on said storage to determine a permit status of said parked vehicle; and
> (j) initiating an infringement process for said vehicle having said permit identifier that fails to coincide with at least one of said at least one parking permit identification. (*Id.* at Claim 1.)

Steps (a) through (h) of claim 1 cover determining whether a vehicle is present in a parking space, then having a human operator determine whether the occupancy indicator light for the parking space is accurate (and correcting it if the space is vacant). Steps (i) and (j) cover determining whether a car parked in a parking space has the required permit (and initiating an "infringement process" if not).

Claim 2 depends from claim 1 and narrows it by requiring the use of a self-modifying classification algorithm:

> 2. The method of claim 1, wherein said detecting includes providing machine-readable code of a self-modifying classification algorithm for assigning said respective statuses, the method further comprising:
> (e) said system executing said machine-readable code to modify said classification algorithm in response to said correcting. (*Id.* at Claim 2.)

Claim 2 thus covers modifying the occupied status algorithm if an error had to be corrected in step (h) of claim 1.

**2. The '956 Patent Specification**

The '956 patent specification provides further context on the nature of the claimed invention. As the specification acknowledges, "[t]he use of different sensor technologies [in a parking lot], such as ultrasonics or image processing is known." (ECF No. 23-1 at col. 1:14-16.) Such known image processing "may determine occupancy of slots and provide the driver with guidance to available spaces either upon entry to the parking lot or by displays strategically located

within the lot." (*Id.* at col. 1:16-23.)

The inventors identify a number of supposed shortcomings in these existing sensing and guidance methods, with objectives for improving on the existing methods with their invention. (*Id.* at col. 1:22-44, 2:1-26.) But nearly all of these objectives relate to claims that the inventors abandoned in prosecution, not the two claims that ultimately issued. For example, the inventors claim that their invention is directed toward providing "customers guidance in finding their car," "reduc[ing] parking lot energy consumption" and "administer[ing] targeted advertising and loyalty programs through vehicle identification." (ECF No. 23-1 at col. 2:3-26.) But nothing in the claims that actually issued pertains to these purported advantages. At best, the issued claims relate to using generic computers for "improv[ing] enforcement of parking lot rules and regulations" and "provid[ing] a platform for real-time remote monitoring and human control of the parking system." (*Id.* at col. 2:15-26; *see also id.* at Claims 1-2.)

The specification makes clear that the claimed methods can be practiced on general computers and hardware, such as a "desktop or server grade computer," "an energy efficient multicolor LED indicator," "CMOS digital camera technology," and a "400 MHz ARM9 processor [], available from ARM Ltd. of Cambridge GB." (*Id.* at col. 7:49-66, 8:30-39, 8:60-63.) Similarly, the '956 patent specification explains that the claimed vehicle detection can be practiced with existing computer algorithms: "Any classification routine or machine learning algorithm can be used; some common algorithms in the literature include Classification and Regression Trees, Support Vector Machines, and Artificial Neural Networks." (*Id.* at col. 11:61-65.) Additionally, "the metrics that are computed can themselves be learned from training data, using a variety of methods known in the art such as Kernel Methods, Principal Components Analysis, Independent Component Analysis, Feature Detection Methods, etc." (*Id.* at col. 11:66-12:4.)

### 3. The Prosecution of the '956 Patent

During prosecution of the '956 patent, the examiner correctly identified subject matter eligibility problems with the pending claims.[1] In May 2015, the examiner issued a rejection of pending claims 19 and 20 (which, following amendment, became issued claims 1 and 2), as ineligible under § 101, along with many other pending claims. (Declaration of Eric M. Acker ("Acker Decl."), filed herewith, Ex. 1 at 3 (5/1/15 Office Action).) The examiner noted that these claims were directed to the abstract idea of "organizing human activities including the mere instructions for a human to implement the claimed idea on a computer," and the additional claim elements did not provide more "meaningful limitations." (*Id.*) In response to this rejection, Park Assist *did not* dispute that the claims were drawn to an abstract idea, but claimed that "[i]t appears that a clerical error has occurred" because the rejected claims "include, at the very least, images captured by an imaging device – *thereby tying the invention to a machine*." (*Id.* at 7 (8/3/15 Resp. to Office Action) (emphasis added).) In response to Park Assist's "clerical error" argument, the examiner withdrew her § 101 rejection without comment.

But six months later the examiner again rejected claims 19 and 20 as ineligible under § 101, along with many other pending claims. (*Id.* at 12 (2/9/16 Office Action).) As the examiner recognized, those claims were "directed to comparing and organizing information . . . for transmission," which is an abstract idea that is ineligible for patenting. (*Id.*) The examiner also recognized that the claims' recitation of "obtaining images," and "determining occupancy based on images," "changing and correcting statuses" did not add the "significantly more"

[1] A court may take judicial notice of a patent's prosecution history in the context of a motion to dismiss under § 101. *Genetic Techs. Ltd. v. Bristol-Myers Squibb Co.*, 72 F. Supp. 3d 521, 526 (D. Del. 2014), *aff'd sub nom. Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369 (Fed. Cir. 2016). Here, SDCRAA discusses the prosecution history not as evidence to support its motion to dismiss, but rather to help the Court understand why Park Assist's prior arguments were legally wrong.

necessary to transform an abstract idea into patentable subject matter. (*Id.* at 13.)

In response to this § 101 rejection, Park Assist again *did not* dispute that the claims were drawn to an abstract idea. (*See id.* at 21 (5/9/16 Resp. to Office Action).) Instead, Park Assist tried to draft around the § 101 defects. Specifically, Park Assist added the "multicolor indicator" clauses to limitations (c) and (h) and argued that "[t]he claims, as amended now recite at least a processor or controller for controlling the illumination of multicolor indicator [sic], and thus, *tying a machine* to a process recitation." (*Id.* at 17-18, 21.) Park Assist also added the parking permit limitations (i) and (j). (*Id.* at 17.) In sum, Park Assist argued that their amended claims satisfied § 101 because they were tied "to machines and processes that can only be performed by computerized systems." (*Id.* at 17, 21.)

Without further analysis, the examiner accepted these arguments in an office action that also allowed only claims 19 and 20 (now claims 1 and 2) to issue "if rewritten in independent form including all of the limitations of the base claim."[2] (*Id.* at 29, 32 (6/9/16 Office Action).) As discussed below, the examiner simply misapplied the evolving law on eligible subject matter, which expressly rejects Park Assist's arguments to the examiner. The examiner should not have allowed claims 1 and 2 to issue, and the Court should now correct that oversight.

## III. LEGAL STANDARD

### A. Patent Eligibility Under § 101

The Supreme Court has adopted a two-step framework for determining whether a claim is patent-ineligible under § 101: (1) whether the claims are directed to one of the three patent-ineligible categories, *i.e.*, laws of nature, natural phenomena, or an abstract idea; and (2) whether any claim elements provide an "inventive concept" that transforms the claim into patent-eligible subject matter.

[2] As claim 19 was already written in independent form, the examiner evidently misread the claim or made an administrative error.

*Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014); *see also Open Parking, LLC v. ParkMe, Inc.*, No. 2:15-cv-976, 2016 U.S. Dist. LEXIS 85260, at *4 (W.D. Pa. Jun. 30, 2016), *aff'd*, 683 F. App'x 932 (Fed. Cir. 2017) (claim to parking system for communicating space occupancy information to mobile device failed both steps of *Alice*).

The first step in *Alice* looks at the "focus" of the claims and their "character as a whole" to determine whether the claims are directed to an abstract idea. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). Claims reciting a "result or effect that itself is the abstract idea and merely invoke generic processes and machinery" do not pass muster under *Alice* step one. *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241 (Fed. Cir. 2016) (citation omitted). Processing information is a typical example of an abstract idea. *Elec. Power Grp* 830 F.3d at 1353 (collecting cases). Methods of organizing human activity also are typically abstract, so courts may consider if the claimed invention is analogous to activities performed by humans. *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1317-18 (Fed. Cir. 2016) (email method claim akin to corporate mailroom).

The second step in *Alice* considers "the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *BSG Tech. LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1289-90 (Fed. Cir. 2018) (quoting *Alice*, 134 S. Ct. at 2355). "These transformative elements must supply an 'inventive concept' that ensures the patent amounts to 'significantly more than a patent upon the [ineligible concept] itself.'" *Id.* (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72-73 (2012)). A claim cannot pass *Alice* step two simply by tying the practice of an abstract idea to a machine or computer. *DDR Holdings LLC v. Hotels.com*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (citing *Mayo*, 566 U.S. at 85; *Alice*, 134 S. Ct. at 2358). As the Supreme

Court made clear, "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice*, 134 S. Ct. at 2358.

### B. Patent Eligibility Under § 101 Routinely Is Determined at the Pleadings Stage

Patent eligibility can be determined at the Rule 12(b)(6) stage "when there are no factual allegations that, taken as true, prevent resolving the eligibility question as a matter of law." *Aatrix Software*, 882 F.3d at 1125. The Federal Circuit has "repeatedly affirmed § 101 rejections at the motion to dismiss stage, before claim construction or significant discovery has commenced." *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 859 F.3d 1352, 1360 (Fed. Cir. 2017); *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1358 (Fed. Cir. 2018) ("[S]ince *Berkheimer* and *Aatrix*, we have continued to uphold decisions concluding that claims were not patent eligible at these stages.") (concurrence in denial of rehearing *en banc*). Early resolution of the § 101 issue can "spare both litigants and courts years of needless litigation." *I/P Engine, Inc. v. AOL Inc.*, 576 F. App'x 982, 996 (Fed. Cir. 2014) (Mayer, J., concurring).

Claim construction is not necessary if the "basic character of the claimed subject matter" can be understood without construing the claims or if the outcome of a § 101 motion would be the same "under any reasonable construction." *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Canada (U.S.)*, 687 F.3d 1266, 1273-74 (Fed. Cir. 2012); *CMG Fin. Servs., Inc. v. Pac. Tr. Bank, F.S.B.*, 50 F. Supp. 3d 1306, 1314 (C.D. Cal. 2014), *aff'd*, 616 F. App'x 420 (Fed. Cir. 2015). For example, the Supreme Court held the claims in *Bilski* patent ineligible without any claim construction. *See Bilski v. Kappos*, 561 U.S. 593, 599, 612 (2010).

## IV. THE CLAIMS OF THE '956 PATENT ARE INELIGIBLE UNDER § 101

The '956 patent claims are archetypes of claims rejected by courts since *Alice*. In fact, as discussed below, just last year the Federal Circuit summarily

affirmed the rejection of remarkably similar claims drawn to using computers to monitor and transmit information about the availability of spaces in a parking lot.

Here, claim 1 is directed to processing information about parking space occupancy and vehicle permit status, which human beings have performed for decades. While claim 1 must be performed on computer systems, it does not improve the functionality of those systems themselves. These computer systems and generic hardware do nothing to add an inventive concept that transforms claim 1 into patentable subject matter, as they are merely physical components that behave exactly as expected according to their ordinary use.

Claim 2 adds only the modification of a classification algorithm in response to user input. In other words, it claims using generic computer code to modify the occupied status detection algorithm in response to user input in step (h) of claim 1. As claim 2 does not teach "significantly more" than running a process on a computer, it lacks the inventive concept necessary to transform its abstract subject matter.

### A. Claim 1 of the '956 Patent Is Ineligible Under § 101

#### 1. Claim 1 is Directed to an Abstract Idea

Claim 1 fails *Alice* step one. It is directed to the abstract concept of processing information, namely information derived from images of parking spaces. Claim 1 implements this processing by using the human mind and generic computer systems—ways of analyzing information that the Supreme Court and Federal Circuit have repeatedly found abstract. And, while claim 1 is set against the backdrop of general computer hardware, nothing in the claim is directed to improving that hardware as such.[3]

[3] Construing the claims of the '956 patent is unnecessary to decide the issues below. No reasonable construction of the claims would alter the fact that the claims are directed to the processing of information, and no reasonable construction of the claims would be dispositive on whether the claims contain an inventive concept. *See Bancorp Servs.*, 687 F.3d at 1273-74; *CMG Fin. Servs.*, 50 F. Supp. 3d at 1314; *see also Open Parking* 2016 U.S. Dist. LEXIS 85260, at *13.

**a. Claim 1 is directed to the abstract idea of processing information**

Claim 1 is directed to the abstract idea of processing information by collecting, storing, analyzing, and transmitting that information. "Information as such is an intangible." *Elec. Power Grp.*, 830 F.3d at 1353. Thus, processing information, including by collecting, storing, analyzing, and transmitting it, is an abstract concept. *See id.*; *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 611-13 (Fed. Cir. 2016) (invalidating claim to method for recording and classifying digital images with telephone unit); *Content Aggregation Sols. LLC v. Blu Prods.*, No. 3:16-cv-00527-BEN-KSC, 2016 U.S. Dist. LEXIS 166122, at *17 (S.D. Cal. Nov. 29, 2016) (invalidating claim to receiving and transmitting data on handheld device). Park Assist cannot circumvent the exclusion of abstract ideas by narrowing the invention to managing a parking lot, as "a variation on the abstract idea does not mean it is not directed to that abstract idea." *Advanced Auctions LLC v. Ebay, Inc.*, No. 13-cv-1612-BEN-JLB, 2015 U.S. Dist. LEXIS 39588, at *6 (S.D. Cal. Mar. 26, 2015) (invalidating claim to Internet auctions).

The Federal Circuit recently affirmed that an invention incredibly similar to the '956 patent is abstract and unpatentable. In *Open Parking, LLC v. ParkMe, Inc.*, the patents at issue claimed a parking system for communicating a real time representation of parking lot occupancy to a mobile device, as well as communicating changes to the occupancy status of individual spaces. 2016 U.S. Dist. LEXIS 85260, at *4. The district court found that "what the patents are really trying to get at is the transmission of substantially real time data of whether there are any open parking spaces in a given lot." *Id.* at *21. This was "moving data (open parking spots or not, and maybe where they are) from one place (the parking lot) to another (the driver's location)," which is an abstract idea. *Id.*

As the *Open Parking* court noted, "[i]nformation about open parking spaces has long been broadcast to drivers who cannot actually see the open spaces." *Id.* at

*22. The court provided two specific examples of this longstanding method of organizing information: (1) parking garages with exterior displays indicating "if (and in some cases how many) spots are vacant" and (2) humans designating empty parking spaces, as "a drive through the streets outside PNC Park on the evening of a Pirates game reveals any number of people with orange flags waving to cars to indicate there are vacant spots in their lots." *Id.* After this analysis, the district court ruled that the patents were directed to ineligible subject matter and dismissed the complaint with prejudice. *Id.* at *29. The Federal Circuit found this determination so straightforward that it issued a summary affirmance. *Open Parking, LLC v. ParkMe, Inc.*, 683 F. App'x 932 (Fed. Cir. 2017) (Rule 36 judgment).

*Electric Power Group* is also instructive. The patentee in that case claimed a method of detecting events on an electric power grid, including receiving data from a variety of data sources, detecting and analyzing events in real time from analysis of specific types of data, displaying event analysis results and diagnoses, displaying visualizations of data streams, and deriving an indicator of power grid vulnerability. *Elec. Power Grp.*, 830 F.3d at 1351-52. The Federal Circuit found the claims directed to an abstract idea, holding that "[t]he advance [the claims] purport to make is a process of gathering and analyzing information of a specified content, then displaying the results, and not any particular assertedly inventive technology for performing those functions." *Id.* at 1354.

Claim 1 of the '956 patent shares the same flaws. Claim 1 purports to cover gathering information ("detecting, by said imaging unit," "obtaining . . . a single high resolution image," and "extracting from said high resolution image . . . a permit identifier"); analyzing the information ("assigning . . . an occupied status," "deciding whether said occupied status is incorrect," and "comparing said permit identifier"); and displaying, or transmitting, the results ("illuminating a first color of a multicolor indicator," "displaying a thumbnail image," and "initiating an

infringement process"). These steps clearly are directed to an abstract idea. *See Elec. Power Grp.*, 830 F.3d at 1354; *see also RecogniCorp LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017) (encoding and decoding image data is abstract). And there is no inventive technology for performing the method, as the '956 patent specification teaches that the technology used was conventional and already known. (*See supra*, Section II.B.2; ECF No. 23-1 at col. 1:14-24, 7:49-66, 8:30-39, 8:60-63, 11:61-12:4.)

**b. Claim 1 covers mental processing and generic computing**

The steps of claim 1 are based on processing information through either human mental processes or generic computer processing. The Federal Circuit has "treated analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category." *Elec. Power Grp.*, 830 F.3d at 1354.

First, claim 1 recites information processing that is expressly done within the human mind. A thumbnail image of a parking space is displayed on a graphic user interface (GUI) and a user "decid[es] whether said occupied status is incorrect, based on a visual review of said thumbnail image on said GUI" and "correct[s] said occupied status, by inputting computer-readable instructions to a computer terminal of said GUI . . . ." This analysis of information, performed within the user's mind, is a textbook example of ineligible subject matter. "[C]omputational methods which can be performed entirely in the human mind are the types of methods that embody the 'basic tools of scientific and technological work' that are free to all men and reserved exclusively to none." *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1146 (Fed. Cir. 2016) (citation omitted). For example, in *RecogniCorp*, the Federal Circuit found that "a method whereby a user displays images on a first display, assigns image codes to the images through an interface using a mathematical formula, and then reproduces the image based on the codes"

was an abstract idea. 855 F.3d at 1326. The human mental processing here is effectively the same.

Second, claim 1 recites information processing akin to mental processing, but based on general computer functions (*e.g.*, "storing at least part of said high resolution image on a storage device," and "extracting from said high resolution image, by digital image processing"). These concepts of data collection, recognition, and storage, are "undisputedly well-known" and abstract. *Content Extraction & Transmission LLC v. Wells Fargo Bank N.A.*, 776 F.3d 1343, 1347 (Fed. Cir. 2014). That a human mind cannot recognize the "processed streams of bits" flowing through a computer is irrelevant to the § 101 analysis, because the basic concept of this activity is abstract. *Id.* (citing *Alice*, 134 S. Ct. at 2356, 2358); *see also Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1345 (Fed. Cir. 2018) (collection, organization, and display of two sets of information on a generic display device is abstract absent a specific improvement to the way technologies operate); *Open Parking*, 2016 U.S. Dist. LEXIS 85260, at *20 (comparing computerized parking system to human management of a parking lot).

Effectively, claim 1 does nothing more than determine whether there is a car in a parking space, whether the space is properly designated as occupied, and whether that car has a permit for that space, which humans have done in their minds, and with pen and paper, for years. *See Open Parking*, 2016 U.S. Dist. LEXIS 85260, at *22 (noting that at sporting events there are "any number of people with orange flags waving to cars to indicate there are vacant spots in their lots"). Such organization of routine human activity is abstract and ineligible for patenting. *See FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1095 (Fed. Cir. 2016) (claim for fraud detection was abstract where it presented the "same questions . . . that humans in analogous situations detecting fraud have asked for decades, if not centuries"); *Intellectual Ventures I*, 838 F.3d at 1317-18 (claim to an email method was abstract where it was similar to operation of a corporate

mailroom).

**c. Claim 1 does not improve the functioning of the technology itself**

Unlike cases in which valid claims were directed to a specific improvement to the way technologies operate, claim 1 does not purport to "improve the functioning of the computer itself." *Alice*, 134 S. Ct. at 2359; *compare Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1305 (Fed. Cir. 2018) (claim employed a "new kind of file that enables a computer security system to do things it could not do before"); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016) (claimed self-referential table was "a specific improvement to the way computers operate"). Nothing in claim 1 instructs how to build a better imaging device, a better indicator, a better GUI, a better computer, or a better algorithm. To the contrary, the '956 patent specification recognizes that claim 1 could be practiced using existing algorithms and off-the-shelf computers. (*See supra*, Section II.B.2; ECF No. 23-1 at col. 1:14-24, 7:49-66, 8:30-39, 8:60-63, 11:61-12:4.)

Claim 1 invokes these existing, generic components and algorithms to implement the abstract idea of processing and displaying information. *See Apple*, 842 F.3d at 1241 (claims were abstract where they did not recite a particular way of programming or designing the claimed features, only the resulting system). The claim's recitation of result-based limitations such as "assigning said parking space . . .an occupied status," "displaying a thumbnail image," and "comparing said permit identifier" are classic examples of automating information processing with a computer, which does not does not improve the functioning of the computer itself and does not confer patentability. *FairWarning*, 839 F.3d at 1095; *Content Aggregation*, 2016 U.S. Dist. LEXIS 166122, at *17 ("generalized steps to be performed on a computer using conventional computer activity" do not lead to patentability (quoting *Enfish*, 822 F.3d at 1338)).

The claim's limitations for "illuminating a first color of a multicolor

indicator" and "toggl[ing] said multicolor indicator to illuminate a second color," which Park Assist added in an express attempt to circumvent § 101 restrictions, are likewise abstract. (Acker Decl. Ex. 1 at 17-18, 21 (5/9/16 Resp. to Office Action).) The Federal Circuit has recognized that such coded transmittal of information is an abstract concept little different than Morse code or "Paul Revere's 'one if by land, two if by sea' signaling system." *Recognicorp*, 855 F.3d at 1326; *see also Open Parking*, 2016 U.S. Dist. LEXIS 85260, at *22.

At its heart, claim 1 is "is not [for] . . . an *improvement in computers as tools*, but [for] certain independently abstract ideas that *use computers as tools*." *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017) (emphasis added) (citation omitted). That is not patentable subject matter.

**2. Claim 1 Recites No Inventive Concept**

Claim 1 fails *Alice* step two. Reciting the use and arrangement of generic computer components lacks the inventive concept necessary to make the claim "significantly more than a patent upon the ineligible concept itself." *Credit Acceptance Corp.*, 859 F.3d at 1054 (citation and brackets omitted). As a matter of Supreme Court and Federal Circuit law, and contrary to Park Assist's arguments during prosecution, tying the claimed method to computerized systems does not transform the claim into a patent-eligible application of the abstract idea.

**a. Claim 1 requires nothing more than a generic implementation of an abstract idea**

The Supreme Court has twice instructed that "simply implementing a mathematical principle on a physical machine, namely a computer, [i]s not a patentable application of that principle." *Alice*, 134 S. Ct. 2357-58 (quoting *Mayo*, 566 U.S. at 84). Since those decisions, the Federal Circuit has consistently rejected claims that recite processing information on generic components:

> The use and arrangement of conventional and generic computer components recited in the claims—such as a database, user terminal, and server—do not transform the claim, as a whole, into "significantly more" than a claim to the abstract idea itself. We have repeatedly held that such invocations of computers and networks that are not even arguably inventive are insufficient to pass the test of an inventive concept in the application of an abstract idea.

*Credit Acceptance Corp.*, 859 F.3d at 1056 (internal citations and quotations omitted); *TDE Petroleum Data Sols., Inc. v. AKM Enter., Inc.*, 657 F. App'x 991, 993 (Fed. Cir. 2016) ("[patentee] does not and cannot argue that storing state values, receiving sensor data, validating sensor data, or determining a state based on sensor data is individually inventive.").

Here it is clear, both from the claim and from the specification, that claim 1 just requires already-available electronics, with their already-available basic functions, to use as tools in executing the claimed processes. *See SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1169-70 (Fed. Cir. 2018). The specification's recitation of processors, RAM, and other commonplace electronics does not amount to anything more than "generic computer implementation." *P&G Co. v. Quantificare, Inc.*, 288 F. Supp. 3d 1002, 1027 (N.D. Cal. 2017); (Section II.B.2; ECF No. 23-1 at col. 1:14-24, 7:49-66, 8:26-59, 8:60-63, 11:61-12:4). The software recited in the specification is similarly generic: "[a]ny classification routine or machine learning algorithm can be used" and the permit identifier is extracted with "digital image processing." (ECF No. 23-1 at col. 11:61-62, Claim 1.) The specification concedes that using such technologies to determine occupancy of slots and provide guidance to available spaces was already known in the art. (*Id.* at col. 1:8-22.)

Moreover, claim 1 itself is far more general than even the patent specification. Limitations and teachings that appear in the specification, but not in

the claim, cannot provide inventive steps for a § 101 analysis. *Two-Way Media Ltd v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) ("While the specification may describe a purported innovative 'scalable architecture,' claim 1 of the '187 patent does not."); *Return Mail, Inc. v. USPS*, 868 F.3d 1350, 1369 (Fed. Cir. 2017) (limitations in specification that "do not appear in the subject claims" did not save claims), *cert. granted on other grounds*, 2018 U.S. LEXIS 6261 (Oct. 26, 2018); *RecogniCorp*, 855 F.3d at 1327 ("[A]n inventive concept must be evident in the claims."). Thus, specific teachings in the specification about, for example, the appearance of a GUI interface or the benefits of claims that were abandoned in prosecution cannot save the abstract concept of claim 1.

Fundamentally, claim 1's use of computer technology is merely for "physical components [that] behave exactly as expected according to their ordinary use," which does not transform an abstract concept into patentable subject matter. *TLI Commc'ns*, 823 F.3d 615; *Open Parking*, 2016 U.S. Dist. LEXIS 85260, at *27 (incorporating computer technology "does not 'override[] the routine and conventional sequence of events' pertaining to finding a parking space").

**b. Park Assist's arguments during prosecution were wrong as a matter of law**

During prosecution of the '956 patent, Park Assist argued that its claims were patentable under § 101 because (1) they recite "images captured by an imaging device," (2) they recite "at least a processor or controller for controlling the illumination of multicolor indicator [sic], and thus, tying a machine to a process recitation," and (3) they are tied "to machines and processes that can only be performed by computerized systems." (Acker Decl. Ex. 1 at 7 (8/3/2015 Resp. to Office Action); *id.* at 21 (5/9/2016 Resp. to Office Action).) None of these arguments pass muster under § 101.

First, merely reciting "images captured by an imaging device" does not satisfy § 101. *See Content Extraction*, 776 F.3d at 1347 (claims reciting a

"scanner" were invalid under § 101); *TLI Commc'ns*, 823 F.3d at 613 ("[T]he claims' recitation of . . . an 'image analysis unit,' and a 'control unit' fail to add an inventive concept."); *P&G Co.*, 288 F. Supp. 3d at 1026-27 (acquiring and analyzing a digital image "are routine computer functions").

Second, reciting a processor or controller to "t[ie] a machine to a process recitation" does not satisfy § 101. *See FairWarning*, 839 F.3d at 1096 (the use of elements like a microprocessor or user interface does not alone transform an otherwise abstract concept); *Cybersource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) ("[T]he basic character of a process claim drawn to an abstract idea is not changed by claiming only its performance by computers"). In fact, the Supreme Court in *Alice* expressly rejected the strategy employed by Park Assist during prosecution. The Court acknowledged that "a computer is a tangible system (in § 101 terms, a 'machine')," but "if that were the end of the § 101 inquiry, an applicant could claim any principle of the physical or social sciences by reciting a computer system configured to implement the relevant concept." *Alice*, 134 S. Ct. at 2359. Permitting patent eligibility "to depend simply on the draftsman's art" would "eviscerat[e] the rule that . . . abstract ideas are not patentable." *Id.* (citations omitted).

Third, tying the claims "to machines and processes that can only be performed by computerized systems" does not satisfy § 101, nor does claim 1 actually do so. In *Content Extraction*, the plaintiff argued that its claims passed § 101 because they required a scanner, and "human minds are unable to process and recognize the stream of bits output by a scanner." 776 F.3d at 1347. The Federal Circuit rejected this argument, pointing out that "the claims in *Alice* also required a computer that processed streams of bits, but nonetheless were found to be abstract." *Id.*; *see also Open Parking*, 2016 U.S. Dist. LEXIS 85260, at *26 (rejecting § 101 argument that claim could only be performed with computer). Moreover, the inquiry is not whether a human mind has the same technological operation as the

recited machine (which would never be the case), but whether the fundamental process is akin to mental or algorithmic activity. *See, e.g.*, *Return Mail*, 868 F.3d at 1368 (invalidating claim to computerized mail encoding and decoding that merely recited processes performed in the human mind, "with the benefit of generic computer technology"). All the processes in claim 1—determining whether a vehicle is in a parking space, indicating space occupancy, reading a permit on a vehicle, comparing the permit to a list of approved permits, and taking action if the permit is not approved—"can, and have been, performed in the human mind," individually and in combination. *Id.*

Finally, to the extent that Park Assist's prosecution arguments were an attempt to invoke the "machine-or-transformation" test, that would still not save claim 1. The Federal Circuit articulated the machine-or-transformation test in *Bilski*: a claimed process is patent eligible if it is tied to a particular machine or transforms an article into a different state or thing. *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008), *abrogated in pertinent part*, 561 U.S. at 604. But the Supreme Court made clear in *Bilski*, *Mayo*, and *Alice* that satisfying the machine-or-transformation test no longer saves claims from § 101 rejections. As the Federal Circuit explained, while the machine-or-transformation test remains an important clue in the patentability inquiry,

> in *Mayo*, the Supreme Court emphasized that satisfying the machine-or-transformation test, *by itself, is not sufficient to render a claim patent-eligible* as not all transformations or machine implementations infuse an otherwise ineligible claim with an "inventive concept." . . . And after *Alice*, there can remain no doubt: recitation of generic computer limitations *does not make an otherwise ineligible claim patent-eligible*. The bare fact that a computer exists in the physical rather than purely conceptual realm "is beside the point."

*DDR Holdings*, 773 F.3d at 1256 (emphasis added) (quoting *Mayo*, 566 U.S. at 85;

*Alice*, 134 S. Ct. at 2358). For example, "[m]erely stating that the methods at issue are performed on already existing vehicle equipment, without more, does not save the disputed claims from abstraction." *Vehicle Intelligence & Safety LLC v. Mercedes-Benz USA*, 635 F. App'x 914, 919 (Fed. Cir. 2015); *see also Open Parking*, 2016 U.S. Dist. LEXIS 85260, at *26-27 ("Just because the abstract ideas in these patents are to be carried out on some mobile device (even a brand spanking new one in 1999), does not save them from having to pass through the *Alice* sieve.").

### B. Dependent Claim 2 of the '956 Patent Is Ineligible Under § 101

#### 1. Claim 2 Is Directed to an Abstract Idea

Claim 2 depends from claim 1 and thus shares the same defects under § 101. Claim 2 narrows claim 1 by requiring the system to execute machine-readable code to modify a classification algorithm in response to the occupancy status correction recited in claim 1. (ECF No. 23-1, Claim 2) Far from saving the claims, this additional limitation confirms that both claims 1 and 2 are directed to the abstract idea of processing information.

Algorithms are abstract concepts. In *Alice*, the Supreme Court noted long-standing precedent under which an algorithm carried out on a general purpose computer "was an abstract idea." 134 S. Ct. at 2357. The Federal Circuit has repeatedly applied this rule to find algorithms are abstract ideas. *See Elec. Power Grp.*, 830 F.3d at 1353 (analyzing information by mathematical algorithms, without more, is an abstract idea); *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) ("a process that employs mathematical algorithms to manipulate existing information to generate additional information" is an abstract idea); *RecogniCorp*, 855 F.3d at 1327 (a "process that started with data, added an algorithm, and ended with a new form of data was directed to an abstract idea").

Here, claim 2 does not purport to improve the algorithm or the computer that runs it. The specification teaches a generic "classification routine or machine learning algorithm" that runs on generic computer equipment. (ECF No. 23-1 at col. 11:61-62.) A claim that recites the use of an algorithmic engine that is "not claimed, identified, or explained . . . is the height of abstraction." *Clarilogic, Inc. v. FormFree Holdings Corp.*, 681 F. App'x 950, 954 (Fed. Cir. 2017).

**2. Claim 2 Recites No Inventive Concept**

Claim 2 lacks anything "significantly more" than the abstract concept of training a generally-known algorithm. The specification confirms that such computer processing is not an independently inventive concept. (ECF No. 23-1 at col. 5:67-6:3 ("Preferably, the image classification system uses a self-modifying classification algorithm, i.e., an algorithm that can be trained to improve the classification accuracy thereof.").) As the specification makes clear, "[a]ny classification routine or machine learning algorithm can be used; some common algorithms in the literature include Classification and Regression Trees, Support Vector Machines, and Artificial Neural Networks." (*Id.* at col. 11:61-64.) Nothing in either the claim or the specification teaches how to code the classification algorithm, or claims that the '956 patent is improving the algorithm itself. Moreover, claiming particular methods of computing information "simply provide[s] further narrowing of what are still mathematical operations" and does not provide an inventive step. *SAP Am.*, 898 F.3d at 1169 (rejecting claim to using an algorithm to analyze data).

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## V. CONCLUSION

The claims of the '956 patent fall squarely within the exceptions to patentable subject matter articulated in *Mayo*/*Alice* and their progeny. The Court should find the claims ineligible for patenting and dismiss Park Assist's Amended Complaint with prejudice.

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

The undersigned hereby certified that on November 8, 2018 a true and correct copy of the foregoing was transmitted electronically to the Electronic Filing System of the United States District Court for the Southern District of California which, under Local Civil Rule 5.4(b)-(d), is believed to have sent notice of such filing, constituting service of the filed document, on all Filing Users, all of whom are believed to have consented to electronic service.

Executed on November 8, 2018, at San Diego, California.

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