

# **Knobbe Martens**

# Protection Strategies for User Interfaces

Presented by:

Mauricio A. Uribe Bryan G. McWhorter

January 12, 2021

# Protectable Aspects of Interfaces

Visual Displays Information Processing Exchange Devices

User Inputs/ Methods Fonts Icons Copy

Executable Code

# Summary of Applicable IP – Interfaces

	Visual Displays	Info. Processing	Info. Exchange	Devices	User Inputs/ Methods	Fonts/ Typeface	Icons	Copy/Text	Executable Code	AR/VR, Projections, Holographs
Copyright		N/A	N/A	N/A	N/A	N/A				
Design Patents		N/A	N/A					N/A	N/A	ŗ
Utility Patents						N/A		N/A	N/A	

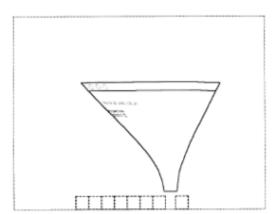
# Protecting Visual Displays

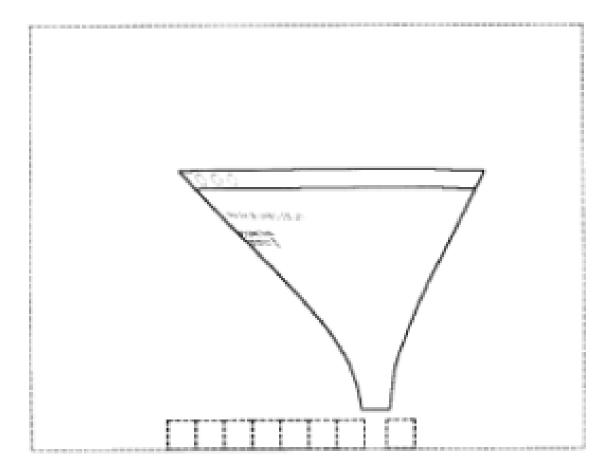
- Visual Displays
  - Organization of Information
  - Animations
  - Information Delivery
- Copyright Law
  - Limited to expression of idea
  - Scenes a faire limited to exact copying precludes elements common to UIs
- Design Patents
  - Each embodiment is a "snapshot" of current state of UI
  - Can be filed as screen capture or wireframe
  - Embodied in an article of manufacture
- Utility Patents
  - Embodiments can protect cycle of motion
  - Focus on idea does not need to include all possible expressions

# Example Design Patents – Visual Displays



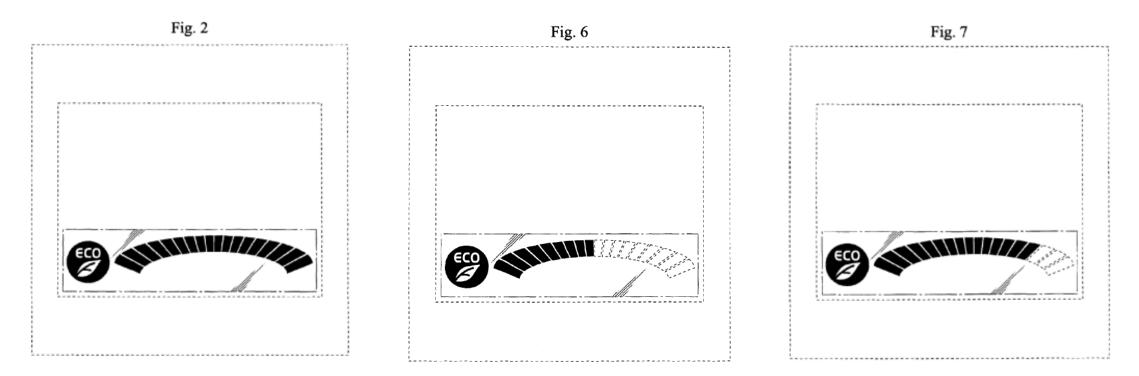
	United S	States Design Pater		nt No.: of Patent:	US D457,164 S
(54)	USER INTER DISPLAY	FACE FOR COMPUTER	Privary Enniver—M. H. Tang (74) Altorny, Agont, or Firm—Burns, Doons, Swecker & Mathis, L.L.P.		
(75)	lieventor: Bes	Ording, Sunryvale, CA (US)	(57)	CLAB	м
(73)	(08	7	The omamental		ser interface for compute
(**) (21)	Term: 14 5	Veits	DESCRIPTION		
	LOC (7) CL	. 5, 2000  14-42  D14-488  D14-488  D14-488  D14-488  D14-488  D14-488  D14-488  D14-488  D14-488  D16-24  D18-24  D18	minerial to wh copyright owns to the by argone sees, as it appear file or records, soeswer. FIG. 1 is a fro FIG. 2 is a frost FIG. 3 is a frost FIG. 5 is a frost FIG. 5 is a frost FIG. 6 is a frost The broken line	sich a claim for has no objection of the punent doc me in the Patent abut reserves all o out view of a su geny new design at view of a third at view of a third at view of a fast at view at view	nd embediment thereof. I embediment thereof. th embediment thereof. embediment thereof; and a embediment thereof, computer display, windows
	D496,967 S * D480,979 S * D486,476 S *	1/2001 Yessi et d. 4/2001 Wang et al. 1/2001 Bedgass	and various graphical representations is for illustrative pur- poses only and forms no part of the claimed design.		
" cite	d by examiner			1 Claim, 6 Draw	ring Sheets





NIIODDE IVIAI LETIS © 2021 Knobbe Martens 5

- US D723,574 "Display Panel with Indicator for Elevator"
  - Movement of indicator shown and described.
    - FIG. 2 is a front elevational view ...;
    - FIG. 6 is an alternate front elevational view showing the changed state 1; and
    - FIG. 7 is another alternate front elevational view showing the changed state 2."





(12)	United	States	Design	Patent
	Nagaoka			

(10) Patent No.:

US D723,054 S (45) Date of Patent: 40 Feb. 24, 2015

(54) 10	ISPLAY SCREEN WITH A GRAPHICAL
τ	SER INTERFACE

(71) Applicant: Nissan Motor Co., Ltd., Yokohamo, Kanagawa (JP)

(72) Investor: Shuji Nagaoka, Tokyo (JP)

(73) Assignee: Nissan Motor Co., Ltd., Yokohamo (JP)

(\*\*) Term: 14 Years

(21) Appl. No.: 29/440,901

(22) Filed: Dec. 28, 2012 (31) LOC (10) CL

(58) Field of Classification Search ..... D04/485-495; 7L5/700-978 See application file for complete search history.

References Cited

## U.S. PATENT DOCUMENTS

D522.525	14		6/2006	Parts	D14/49
				Crow et al.	
D602.944	8	*	10/2009	Barkhouse et al	D14/482
12603,417	14	*	11/2009	Oubsome et al.	D14:480

	D633,517	55		3/2011	Wair et al	D1446
	D649,557	5	*	11/2011	Duchene	D14:499
20	03/02/30443	Al	٠	12/2019	Crosmer et al.	180/65.5
20	006/01/55429	Al		7/2006	Boone et al.	7001

\* cited by examiner

Primary Examiner - Ian Simmons

Assistant Examinor - Richelle G Shelton

(74) Attorney, Agent. or Firm - Global IP Counselors, LLP

CLAIM

The omamental design for a display screen with a graphical user interface, as shown and described.

## DESCRIPTION

The patent file contains at least one drawing executed in color. Copies of this parent with a color drawing will be provided by the Office upon request and payment of the necessary fee. FIG. 1 is a front view of a display screen with a graphical user interface in accordance with a first embodiment of my new

FIG. 2 is a front view of a display serion with a graphical user interface in accordance with a second embodiment of my new

The broken line showing of a display screen in all views forms no part of the claimed design.

> 1 Claim, 2 Drawing Sheets (1 of 2 Drawing Sheet(s) Filed in Color)

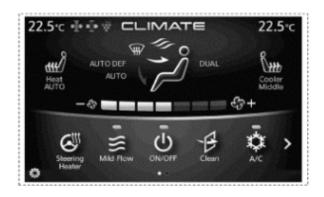




FIG. 1



## (12) United States Design Patent (10) Patent No.:

(45) Date of Patent: \*\* Jul. 30, 2013

(34)	GRAPHICAL USER INTERFACE						
(75)	Inventors:	Steven A. Hales, IV. Palo Alto, CA					

(US); Michael Plitkins, Berkeley, CA

(73) Assignee: Nest Labs, Inc., Palo Alto, CA (US)

(\*\*) Term: 14 Years

(21) Appl. No.: 29/399,636 (22) Filed: Aug. 16, 2011

(51) LOC (9) CL (52) U.S. Cl. (58) Field of Classification Search

## U.S. PATENT DOCUMENTS

3.971.012	Α	*	7/1976	Morokawa et al	345/33
5,808,419	A	+	9/1998	Sunaga et al	15/169.1
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6,061,062	Α	+	5/2000	Venolia	715/856
D473,237	S	*	4/2003	Han et al	D14/489
D474.195	S	٠	5/2003	Kates et al	D14/485
D496,940	S	*	10/2004	Fetterman	D14/485
D498,240	S	٠	11/2004	Amaitis et al	D14/486
D505,135	S	٠	5/2005	Sapp et al	D14/489
D544,495	S	*	6/2007	Evans et al.	D14/488
D544,496	S	*	6/2007	Evans et al.	D14/489
7,340,333	В	2 *	3/2008	Lenneman et al.	701/36
D586,359	S	*	2/2009	Makoski et al	D14/486
D597,554	S	*	8/2009	Danton	D14/491
D602.945	S	*	10/2009		
D654.929	S		2/2012	Morrow et al	D14/492

D658,678	s =	5/2012	Gleasman et al D14/488		
8,169,405		5/2012	Hunleth et al		
D662,108		6/2012	Okumura et al D14/487		
D677,180		3/2013	Plitkins et al D10/50		
2004/0109033	AI*	6/2004	Vienneau et al 345/863		
2007/0094597	Al*	4/2007	Rostom 715/700		
(Continued)					
Primary Examiner - Karen E Kearney					
(74) Attorney, Agent, or Firm - Kilpatrick Townsend &					
Stockton LLP	3				

CLAIM The ornamental design for a display screen with an animated graphical user interface, as shown and described.

## DESCRIPTION

FIG. 1 is a front view of a first image in the sequence for a display screen with an animated graphical user interface,

showing our new design; FIG. 2 is a front view of a second image thereof; FIG. 3 is a front view of a third image thereof;

FIG. 4 is a front view of a fourth image thereof; FIG. 5 is a front view of a fifth image thereof; FIG. 6 is a front view of a sixth image thereof;

FIG. 7 is a front view of a seventh image thereof;

FIG. 8 is a front view of a eighth image thereof; and, FIG. 9 is a front view of a ninth image thereof. The broken line showings of the control unit, display screen,

and various features of the graphical user interface are included for the purpose of illustrating environmental structure and portions of the article. The broken lines form no part of the claimed design.

The appearance of the transitional image sequentially transitions between images shown in FIGS. 1 through 9. The process or period in which one image transitions to another image forms no part of the claimed design.

## 1 Claim, 9 Drawing Sheets







FIG. 1

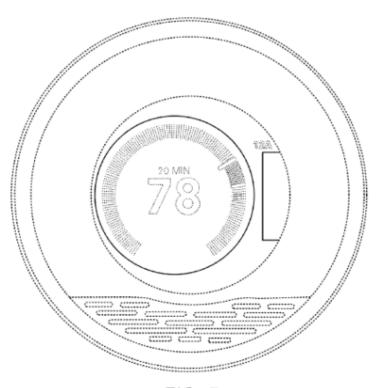
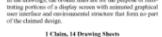


FIG. 5

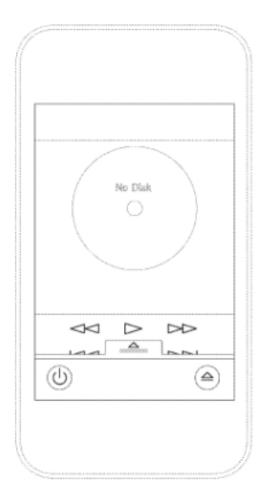


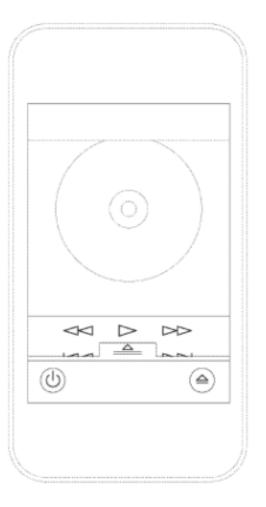
(12) United States Design Patent	(10) Patent No.:	US	S D749,107 S
Amiya	(45) Date of Patent:	**	Feb. 9, 2016

	AY SCREEN WITH ANIMATED IICAL USER INTERFACE	D724,618 S * 32015 Skin D1448 D732,648 S * 62015 Nix et al. D1448 D732,769 S * 62015 Annuers et al. D1448			
(71) Applica	nt: YAMAHA CORPORATION, Hamamatsu-shi, Shizuoka (JP)	2005/0097478 A1 * 5/2005 Killian et al. 715/85 2007/0261003 A1 * 11/2007 Reissumseller 715/81 2009/0019397 A1 * 1/2009 Buffet et al. 715/83 2014/02/08/241 A1 * 7/2014 Charles et al. 715/76			
(72) Inventor	Eizo Amiya, Hamamatsu (JP)	* cited by examiner			
(73) Assigne	e: YAMAHA CORPORATION, Shizueka (JP)	Primary Examiner — Beandon M Rosati Assistant Examiner — Rhea Shields			
(**) Term:	14 Years	(74) Attorney, Agent, or Firm — Sughrue Mion, PLLC			
(21) Appl. No. (22) Filed:	o.: 29/467,784 Sep. 24, 2013	(57) CLAIM The ornamental design for a display screen with animated graphical user interface, as shown and described.			
	0) CL	DESCRIPTION			
(52) U.S. CL		DESCRIPTION			
	D14/486	FIG. 1 is a front view of a display screen with animate			
	Classification Search	graphical user interface showing my new design;			
USPC .	D14/485-495, 496, 203.3, 203.7, 341;	FIG. 2 is the second image thereof;			
	D20/24; D18/26, 31-33; 715/702, 764,	FIG. 3 is the third image thereof;			
cnc	715/851, 810, 837, 760; 455/566 . G06F 3/016; G06F 3/0481; G06F 3/0482;	FIG. 4 is the fourth image thereof;			
CPC	G06F 3/04815; G06F 3/04817	FIG. 5 is the fifth image thereof;			
See and	ication file for complete search history.	FIG. 6 is the sixth image thereof; FIG. 7 is the seventh image thereof;			
oce app	remon me to comprese remainment.	FIG. 8 is the eighth image thereof:			
56)	References Cited	FIG. 9 is the ninth image thereof;			
	U.S. PATENT DOCUMENTS	FIG. 10 is the tenth image thereof;			
	U.S. PATENT DOCUMENTS	FIG. 11 is the eleventh image thereof;			
D477,828	S * 7/2003 Ferguson et al D14/486	FIG. 12 is the twelfth image thereof;			
D602,033		FIG. 13 is the thirteenth image thereof; and,			
D611,959 7,860,536		FIG. 14 is the fourteenth image thereof.			
D637,196		The appearance of the animated image sequentially transi tions between the images shown in FIGS. 1-14. The process			
D638,819	S * 5/2011 Shim et al	or period in which one image transitions to another forms n			
D676,019 D689,480		part of the claimed design.			
D706,283		In the drawings, the broken lines are for the purpose of illus			
D708,221		trating portions of a display screen with animated graphica			
D709,913	S * 7/2014 Blood D14/491	user interface and environmental structure that form no par			
DOM: 917	S. #. 7/2014 Endlease et al. D144994				
D709,917 D716,316	S * 10/2014 Belizadi et al	of the claimed design.			
	S * 10/2014 Behzadi et al	of the claimed design.  1 Claim, 14 Drawing Sheets			











(12) United States Design Paten Anzures et al.	t (10) Patent No.: US D604,305 S (45) Date of Patent: **Nov. 17, 2009		
(54) GRAPHICAL USER INTERFACE FOR A DISPLAY SCREEN OR PORTION THEREOF	D565,588 S 4/2008 Sherry D567,171 S * 4/2008 Yu et al		
	D568.900 S 5/2008 Seo et al.		
(75) Inventors: Freddy Anzures, San Francisco, CA	D569,383 S 5/2008 Jung et al.		
(US); Imran Chaudhri, San Francisco,	D574,009 S 7/2008 DelPonte		
CA (US)	D574,388 S * 8/2008 Armendariz et al D14/486		
(73) Assignee: Apple Inc., Cupertino, CA (US)	D574,391 S * 8/2008 Kwag		
(**) Term: 14 Years	D579,946 S 11/2008 Log et al.		
,	D580,949 S 11/2008 Durarte		
(21) Appl. No.: 29/281,460	D581,424 S 11/2008 Hong		
	D585,075 S 1/2009 Flynt et al.		
(22) Filed: Jun. 23, 2007	D587,720 S * 3/2009 Noviello et al D14/485		
(51) LOC (9) Cl	FOREIGN PATENT DOCUMENTS		
52) U.S. Cl D14/486	JP D1235127 4/2005		
<ul><li>(58) Field of Classification Search D14/485–95;</li></ul>	OTHER PUBLICATIONS		
D18/24-33; D19/6, 52; D20/11; D21/324-33;	OTHER PUBLICATIONS		
715/700-867, 973-77	U.S. Appl. No. 29/281,507, Anzures et al., Icons, Graphical User		
See application file for complete search history.	Interface, and Animated Graphical User Interfaces for a Display		
(56) References Cited	Screen or Portion Thereof, filed Jun. 25, 2007.		
U.S. PATENT DOCUMENTS	(Continued)		
	Primary Examiner—Melanie H Tung		
D295,877 S 5/1988 Wells-Papanek et al. 5,214,756 A 5/1993 Franklin et al.	(74) Attorney, Agent, or Firm-Sterne, Kessler, Goldstein &		
5,555,364 A 9/1996 Goldstein	Fox P.L.L.C.		
D390,548 S 2/1998 Mackinga et al.			
D392,266 S 3/1998 Snyder et al.	(57) CLAIM		
D418,826 S 1/2000 Pavely et al.			
D420,993 S 2/2000 Decker	The ornamental design for a graphical user interface for a		
D438,213 S 2/2001 Herget et al.	display screen or portion thereof, as shown and described.		
D441,763 S 5/2001 Kahn et al.			
D445,428 S 7/2001 Pattenden	DESCRIPTION		
D462,076 S 8/2002 Robbin et al.	The potent file contains at least one drawing executed in color.		
D472,244 S 3/2003 Wasko	Copies of this patent with a color drawing will be provided by		
6,731,316 B2 5/2004 Herigstad et al. D507,577 S * 7/2005 Totten et al	the Office upon request and payment of the necessary fee.		
6.983,424 B1 1/2006 Dutta			
D540.340 S * 4/2007 Cummins	FIG. 1 is a front view of a graphical user interface for a display		
D544,875 S 6/2007 Wang et al.	screen or portion thereof showing our new design; and,		
D548,239 S * 8/2007 Rimas-Ribikauskas	FIG. 2 is a front view of a second embodiment thereof.		
et al D14/485	The broken line showing of a display screen in both views		
D552,620 S * 10/2007 Sato et al	forms no part of the claimed design.		
D555,660 S * 11/2007 Noviello et al D14/485			
D559,261 S * 1/2008 Jung et al D14/486	1 Claim 2 Drawing Shorts		
D564,530 S * 3/2008 Kim et al D14/486	1 Claim, 2 Drawing Sheets		
D565,586 S 4/2008 Shin et al.	(1 of 2 Drawing Sheet(s) Filed in Color)		







FIG. 1

FIG. 2

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# Example Utility Patents – User Interface

## 

## (12) United States Patent

- (54) MULTIMODAL USER INTERFACE FOR DESTINATION CALL REQUEST OF ELEVATOR SYSTEMS USING ROUTE AND
- (71) Applicants: ThyssenKrupp Elevator AG, Essen (DE); ThyssenKrupp AG, Essen (DE)
- (72) Inventor: Chih-Hung Aaron King, Sharpsburg.
- (73) Assignces: THYSSENKRUPP ELEVATOR AG, Essen (DE): THYSSENKRUPP AG.
- (\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 471 days.
- (21) Appl. No.: 15/140,936
- (22) Filed: Apr. 28, 2016
- Prior Publication Data US 2017/0313546 A1 Nov. 2, 2017
- (51) Int. Cl. B66B 1/34 B66B 1/24
- (2006.01) (Continued)
- (58) Field of Classification Search CPC ...... B66B 1/2491; B66B 1/468; B66B 3/006; B66B 9/003; B66B 2201/103;

#### (10) Patent No.: US 10,294,069 B2 (45) Date of Patent: May 21, 2019

References Cited U.S. PATENT DOCUMENTS

6.868.945 B2 \* 3/2005 Schuster

(Continued)

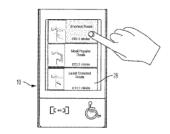
#### FOREIGN PATENT DOCUMENTS

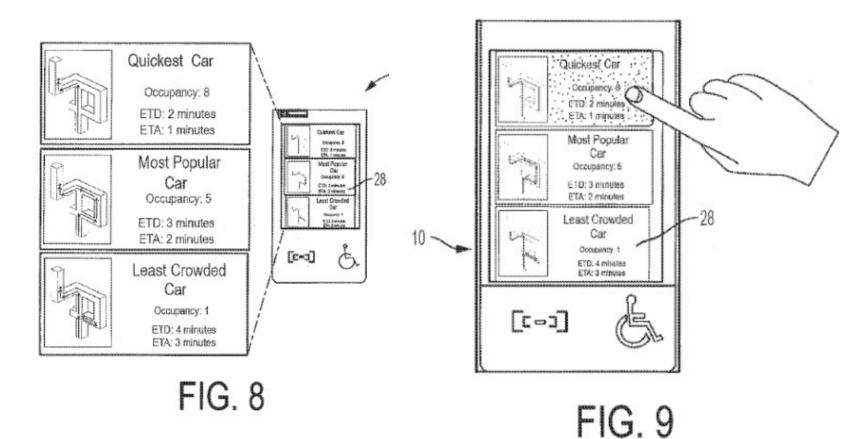
201530613 A 2/2015 (Continued)

Primary Examiner - Anthony J Salata (74) Attorney, Agent, or Firm - The Webb Law Firm

An elevator control system for an elevator system, including a display device, at least one processor in communication with the display device and the elevator system, the at least one processor programmed or configured to render, on the display device, a graphical destination interface with a plurality of visual representations of destinations within the building, receive a user selection of a selected destination from the plurality of destinations, determine a plurality of selectable options for elevator call requests based on the selected destination, render the plurality of selectable options for elevator call requests on the graphical destination interface or a second graphical call request interface, receive a user selection of a selected option from the plurality of selectable options for elevator call requests, and control movement of an elevator car in the elevator system based on the selected destination and the selected option.

#### 20 Claims, 13 Drawing Sheets

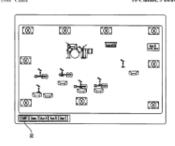


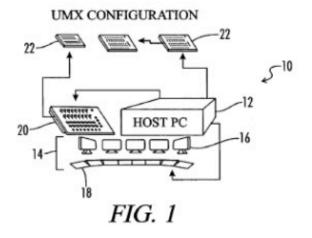


# Example Utility Patents – User Interface









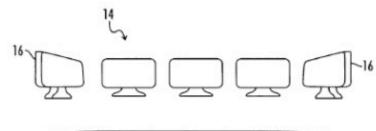
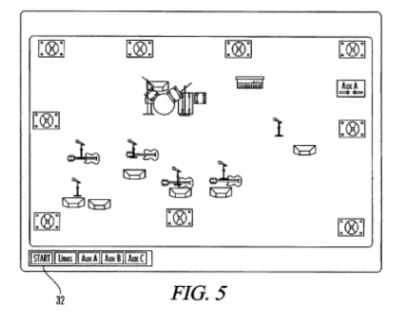




FIG. 2



# Sample Claim – Hypothetical Inventions

## A method comprising:

causing generation, on a display device, of a user interface, the generated user interface including a display of a plurality of selectable modes for operation of a widget, the display corresponding to a first substantially vertical alignment of the plurality of selectable destinations;

obtaining user selection of at least one selectable mode for operation; and

responsive to the user selection, modifying the generated user interface to offset the at least one selected mode of operation, wherein the modified user interface includes a second substantially vertical alignment of the at least one selected mode of operation.

## A method comprising:

causing generation, on a display device, of a user interface, the generated user interface including a display of a plurality of selectable mode of operations of a widget, wherein each display of the plurality of selectable mode of operations corresponds to a first display size and wherein each selectable mode of operation is defined by a range of desired operating parameters;

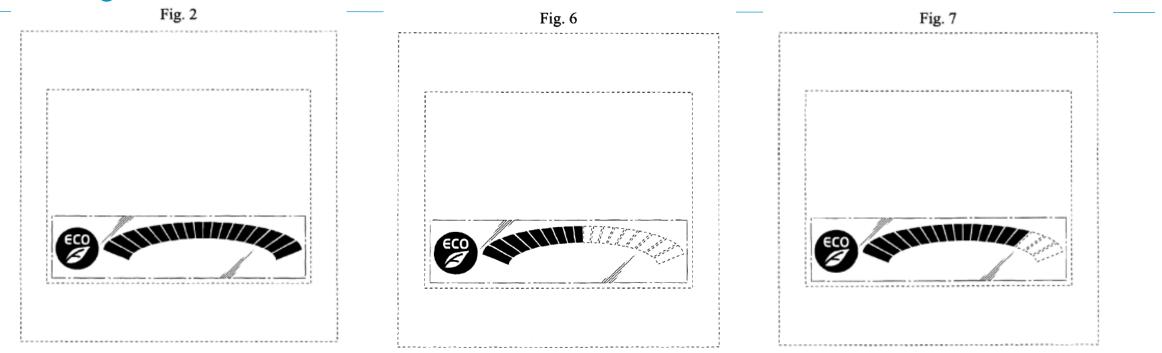
obtaining user selection of at least one selectable mode of operation; and

responsive to the user selection, modifying the generated user interface, wherein the modified user interface includes a second display size of the at least one selected mode of operation;

obtaining input regarding a current operating parameter of the widget,; and

modifying the generated user interface based to increase the second display size based on a determined difference between the current operating parameter of the widget and the selected mode of operation.

# **Drafting Exercise**



obtaining a first input associated a current progress state of a consumer electronics device; associating the current state with a first display category; causing the display of the first display category; obtaining a second input associated with an updated progress state of the electronics device; associating the updated current state with a second display category based on exceeding a progress threshold; and causing the display of the second display category.

# Strategic Questions – Deciding Between Utility and Design Patent Protection

## **Utility Patent Protection**

- Information Processing
  - Does UI depend on user inputs or user information (e.g., profile)?
  - Does device generating UI receive information from components that are remote to the display device?
  - Does the device/system generating the UI filter or simplify data that is used in generating the UI? AI?
- Visual Aspects
  - Does UI simplify the presentation of data dynamically based on simplification criteria?
  - Does placement of UI elements improve user recognition/response?
  - If UI has animation, are the animation elements representative or characteristic of dynamic information?
- Display/Hardware
  - Are there unique hardware components that facilitate UI (e.g., screen placement/configuration, display location, etc.)?

## **Design Patent Protection**

- Does UI have common elements with other UIs?
- Do any UI elements emerge have more significance/prominence or aesthetic appeal?
- Does UI leverage unique, functional hardware components?
- If UI has animation, can animation elements be represented in discrete steps or intermediate frames?



- Information Processing
  - Local Processing (Device)
  - Remote Processing (Service)
- No Copyright or Design Patent protections
- Utility Patents
  - Claim sets can be directed to local processing or remote processing
  - Possible focal points:
    - Selection of content to display
    - Customization of data to display
    - Processing of multiple inputs
    - Translation/supplementing of data

# Example Utility Patent – Information Processing

US 9.519.678 B2

Dec. 13, 2016



## (12) United States Patent Fleischman et al.

(10) Patent No.: (45) Date of Patent:

(54) MANAGING ITEM OUERIES

(71) Applicant: Expedia, Inc., Bellevue, WA (US)

(72) Inventors: David Elias Fleischman, Issaquah, WA
(US); Joanne Louise Burger, Seattle,
WA (US); Brian Scott Keffeler, Seattle,
WA (US); Brian Scott Keffeler, Seattle,
WA (US); Daniel Harrison
Friedman, Mercer Island, WA (US);
Glenn Padgett Crowe, Woodinville,
WA (US); Vincent Yung, Issaquah, WA
(US); Murari Gopalan, Seattle, WA
(US); John C Kim, Sammanish, WA
(US); Anne Marie Tuazon, Renton,
WA (US)

(73) Assignee: EXPEDIA, INC., Bellevue, WA (US)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 13/631,768

(22) Filed: Sep. 28, 2012

(65) **Prior Publication Data**US 2014/0095524 A1 Apr. 3, 2014

(51) Int. Cl. G06F 17/30 (2006.01) G06Q 10/02 (2012.01)

(52) U.S. Cl. CPC ....... *G06F 17/30389* (2013.01); *G06O 10/02* 

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8,407,099 8,719,251 2002/0107842 2003/0036930 2005/0192870 2009/0033226 2009/0216633 2010/0125492 2010/0168994	B1 * A1 * A1 * A1 * A1 * A1 *	5/2014 8/2002 2/2003 9/2005 3/2009 8/2009 5/2010	Frank et al. 707/713 English et al. 707/713 Biebesheimer G06F 17/30864 Matos et al. 705/5 Geddes Kawale et al. 707/3 Whitsett et al. 705/14 Lin et al.
2010/0125492 2010/0168994 2010/0169131 2010/0250529	A1 A1*	7/2010 7/2010	Lin et al. Bourque et al. Robertson
		(Con	tinued)

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"An Analysis of travel information searching on the web", Jansen et al., copyright 2008 Cognizant Comm. Corp., Information Technology and Tourism vol. 10.\*

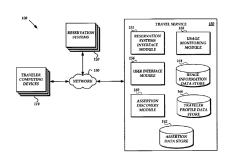
Primary Examiner — Etienne Leroux Assistant Examiner — Cindy Nguyen

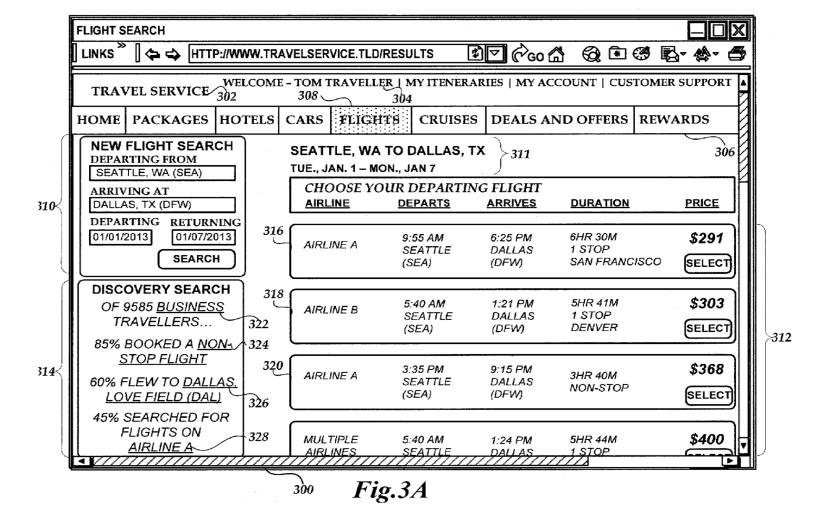
(74) Attorney, Agent, or Firm — Knobbe Martens Olson & Bear LLP

## (57) ABSTRACT

A network-based service may be provided for facilitating queries for a number of items, such as travel services. A user may submit a query including criteria for determining one or more relevant items. Based on the submitted query, the network-based service may present the user with information regarding the actions of other similar users of the network-based service, such as searches performed by the other users. Based on this information, the user may elect to supplement the current query to conform to the actions for other users. In some embodiments, actions by other users may be based at least in part on a category of the querying user. By presenting actions of similar users, a current user may be enabled to select the most relevant query terms for identifying a desired item.

## 25 Claims, 9 Drawing Sheets

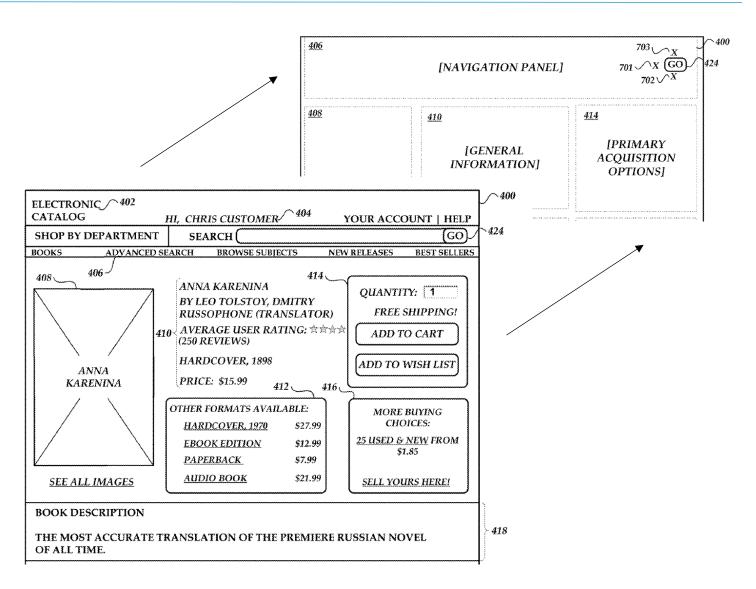




**Knobbe Martens** 

# Example Utility Patent – Information Processing

#### (12) United States Patent (10) Patent No.: US 10.579.227 B1 Bura et al. (45) Date of Patent: Mar. 3, 2020 (54) IDENTIFYING MISSED INTERACTIONS References Cited U.S. PATENT DOCUMENTS (71) Applicant: Amazon Technologies, Inc., Seattle. WA (US) 2011/0179388 A1\* 7/2011 Fleizach (72) Inventors: Mihai Bura, Iasi (RO); Catalin 2011/0252299 A1\* 10/2011 Lloyd Dumitru, Iasi (RO); Alexandru Tronciu, Iasi (RO) 2012/0092381 A1\* 4/2012 Hoover (73) Assignee: Amazon Technologies, Inc., Seattle, \* cited by examiner WA (US) Primary Examiner - Tu T Nguyen Subject to any disclaimer, the term of this (74) Attorney, Agent, or Firm - Knobbe, Martens, Olson patent is extended or adjusted under 35 U.S.C. 154(b) by 185 days. ABSTRACT (21) Appl. No.: 15/900,274 Systems and methods are disclosed which detect unrespon-(22) Filed: Feb. 20, 2018 sive interactions with display pages. Specifically, a client computing device may retrieve display pages from a remote (51) Int. Cl. computing system for local display. A local interaction G06F 3/0483 (2013.01)monitoring component may monitor local interactions with H04L 29/08 (2006.01)the display page, and identify those interactions with the H04L 29/06 (2006.01)display pages that did not produce a change in the display (52) U.S. Cl. page as unresponsive interactions. Unresponsive interac-G06F 3/0483 (2013.01); H04L 67/02 tions are monitored to determine whether a cluster of (2013.01); H04L 67/42 (2013.01) unresponsive interactions is formed around an interactive (58) Field of Classification Search element and the size of the active area of the interactive CPC ....... G06F 3/0483; H04L 67/42; H04L 67/02 element is increased. 20 Claims, 9 Drawing Sheets



See application file for complete search history.



- Generally no copyright protection
- Design Patents
  - Focus limited to non-functional aspects of device
- Utility Patents
  - Complimentary focus on functional aspects of device
  - Data processing and storage
  - Control or generating user interfaces
  - Hardware or software components for receiving/detecting inputs

# **Example Utility Patents – Devices**

## (12) United States Patent Myers et al.

- (54) METHODS, SYSTEMS AND DEVICES FOR PHYSICAL CONTACT ACTIVATED DISPLAY AND NAVIGATION
- (71) Applicant: Fitbit, Inc., San Francisco, CA (US)
- (72) Inventors: Nicholas Myers, Oakland, CA (US);
  Christine Brumback, San Francisco,
  CA (US); Timothy Roberts, San
  Francisco, CA (US); James Park,
  Berkeley, CA (US); Dave Knight, San
  Francisco, CA (US); Shelten Yuen,
  Berkeley, CA (US); Jayson Messenger,
  San Francisco, CA (US)
- (73) Assignee: Fitbit, Inc., San Francisco, CA (US)
- (\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days, days.
- (21) Appl. No.: 15/096,240
- (22) Filed: Apr. 11, 2016
- (65) Prior Publication Data

US 2016/0224130 A1 Aug. 4, 2016

## Related U.S. Application Data

- (60) Continuation of application No. 14/192,282, filed on Feb. 27, 2014, now Pat. No. 9,310,909, which is a (Continued)
- (51) Int. Cl.

  G06F 3/038 (2013.01)

  G06F 3/041 (2006.01)

  (Continued)

(Continued)

- (10) Patent No.: US 9,965,059 B2
- (45) **Date of Patent:** May 8, 2018
- (58) Field of Classification Search
  CPC .... G06F 3/0485; G06F 1/163; G06F 3/03547;
  G06F 3/0414; G06F 1/1613; G06F
  2200/1637; G06F 3/014
  See application file for complete search history.

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(Continued)

Primary Examiner — Kent Chang Assistant Examiner — Scott Au (74) Attorney, Agent, or Firm — Knobbe, Martens, Olson & Bear, LLP

## (57) ABSTRACT

Methods, systems and devices are provided for providing user interface navigation of screen display metrics of a device. In one example, a device is configured for capture of activity data for a user. The device includes a housing and a screen disposed on the housing to display a plurality of metrics which include metrics that characterize the activity captured over time. The device further includes a sensor disposed in the housing to capture physical contact upon the housing. A processor is included to process the physical contact to determine if the physical contact qualifies as an input. The processor enables the screen from an off state (Continued)

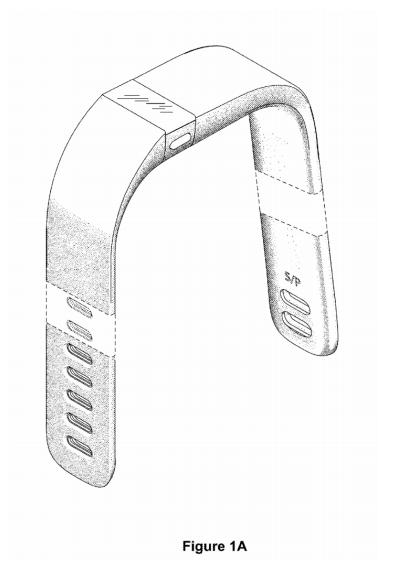
130 100 Surface (120) Display Screen (120) Surface (120) PM 126 TAP~124 (Physical Contact) .51 Button FIG. 1B 102 100 130' 124 (Physical Contact) 120 5721 Steps ... THO ! FIG. 1C (metric) 102 122



20

# Example Design Patents – Devices

	United States Design Patent Park et al.	(10) Patent No.: US D720,635 S (45) Date of Patent: ** Jan. 6, 2015
(54)	ENHANCED WRISTBAND HEALTH	342/419, 450, 457, 458; 250/DIG. 1; D11/3-5
	TRACKER	
(71)	A aliant Field In Conference CA (IG)	See application file for complete search history.
(71)	Applicant: Fitbit, Inc., San Francisco, CA (US)	(56) References Cited
(72)	I Death of A (III) Mark	(50) References Cited
(72)	Inventors: James Park, Berkeley, CA (US); Mark	U.S. PATENT DOCUMENTS
	Manuel Martinez, San Francisco, CA	
	(US); Michael Joseph Francisco,	D315,111 S * 3/1991 Rogalski D10/97
	Fremont, CA (US); Gadi Amit, San	D323,787 S * 2/1992 Moorman D10/97
	Mateo, CA (US); Jacqueline Lee	D331,020 S * 11/1992 Ishii et al
	Belleau, Alameda, CA (US); Daniel J.	D400,112 S * 10/1998 Rider
	Clifton, San Francisco, CA (US); Susan	D455,093 S * 4/2002 Fitzgerald
	Elizabeth McKinney, San Francisco,	D538,687 S * 3/2007 Komulainen
	CA (US)	D548,128 S * 8/2007 Andren et al D11/3
	C11 (05)	D549,602 S * 8/2007 Oberrieder et al D10/65
73)	Assignee: Fitbit, Inc., San Francisco, CA (US)	D550,105 S * 9/2007 Oberrieder et al
13)	Assignee: Pribit, Inc., San Francisco, CA (OS)	D550,112 S * 9/2007 Andren et al
**)	Term: 14 Years	D564,367 S * 3/2008 Molyneux
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21)	Appl. No.: 29/468,517	D569,282 S * 5/2008 Daniel D10/65
-1)	11pp. 110 <b>2</b> 7/100,017	D581,826 S * 12/2008 Molyneux D11/2
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(51)	LOC (10) Cl 10-04	D610,476 S * 2/2010 Daniel
(52)	U.S. Cl.	D664,880 S * 8/2012 Cobbett et al
	USPC <b>D10/98</b> ; D10/70	D664,881 S * 8/2012 Cobbett et al D11/3
(58)	Field of Classification Search	D664,882 S * 8/2012 Cobbett et al D11/3
	CPC A63B 24/00; A63B 2220/14; A63B 71/06;	D669,382 S * 10/2012 Alvarez et al
	A63B 26/00; A63B 24/0075; A63B	D669,383 S * 10/2012 Cobbett et al
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	A44C 5/14; A44C 5/02; A61B 19/44; A61B	D672,667 S * 12/2012 Mix D10/65
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	USPC D10/65, 70, 78, 97, 98, 30-32, 38, 39;	D680,020 S * 4/2013 Cobbett et al
	2/127, 170; 40/633, 665; 59/80;	D684,082 S * 6/2013 Advarez et al D11/3
	63/15.7; 340/407.1, 665, 323 R;	D693,251 S * 11/2013 Anderssen et al
	368/41; 434/247, 258; 482/1, 2, 4, 8, 9,	
	482/44, 148, 901, 74, 909; 600/485, 500,	* cited by examiner
	600/503, 437, 443, 453, 459, 465, 479, 502,	D. F. J. Antolog D.D. J.
	600/595, 481, 483; 702/178, 155, 160, 176,	Primary Examiner — Antoine D Davis
	702/78, 79, 82, 91–95, 104, 116, 141, 150,	(74) Attorney, Agent, or Firm — Weaver Austin
	702/151, 154, 127, 131, 182, 183, 189;	Villeneuve & Sampson
	235/105; 377/5, 24.2, 26; 73/514.33,	(57) CLAIM
	73/514.34, 510, 513, 527, 530; 324/522;	The ornamental design for an enhanced wristband health
	345/165, 156, 905; 342/27, 28, 52–58,	tracker, as shown and described.
	343/103, 130, 303, 342/27, 20, 32-30,	tracker, as shown and described.



# Hypothetical: How do we protect the UX of a new personal media player?

- I've designed a *brand-new* personal media player called the "MyPod." It plays MP3 files!
  - It has a screen to show what's being played, a circular "scroll wheel" that lets a user scroll up and down on the screen, and a middle button to select
  - For added security, I've made the middle button a fingerprint sensor
  - It learns what MP3's you like, and sends recommendations for new ones you might like to buy from my online MP3 emporium
    - It uses machine learning!
- How do I protect it?

# Hypothetical: How do we protect the UX of a new personal media player?

- Copyrights?
  - MP3s are definitely copyrighted. So are my logos.
- Patents?
  - Since my idea is *brand-new*, I might patent various aspects:
    - The scrolling interface using a scroll wheel
    - Authenticating the user using the fingerprint sensor
    - Recommendations using my new ML algorithm
- Design patents?
  - I could get a design patent on the cool new ornamental design of the design
  - Maybe the screen UI too!



- No Copyright or Utility Patent protection for typefaces or fonts
- Copyright
  - Individual icons are protected
  - "Computer fonts"—the actual file used to distribute the font—are protected
- Design Patents
  - Type fonts can be protected
  - Typeface can be protected
  - Individual icons can be protected multiple embodiments depending on the device

# Design Patent Examples - Icons



## (12) United States Design Patent (10) Patent No.: US D787,556 S Gaur et al. (45) Date of Patent: \*\* May 23, 2017

(54)	DISPLAY SCREEN OR PORTION THEREOF
	WITH ICON

- (71) Applicant: Google Inc., Mountain View, CA (US)
- (72) Inventors: Aastha Gaur, Playa del Rey, CA (US); Taylor Herr, San Francisco, CA (US)
- (73) Assignee: GOOGLE INC., Mountain View, CA (US)
- (\*\*) Term: 15 Years
- (21) Appl. No.: 29/559,983
- (22) Filed: Apr. 1, 2016 (51) LOC (10) Cl. 14-04 (52) U.S. Cl. 14-04 USFC D14/493

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D716,344	S	٠	10/2014	Anzures	D14
D741.900	S	*	10/2015	Yang	D14
D752,639	S	٠	3/2016	Meon	D14
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(Continued)

Primary Examiner - Kevin Rudzinski

Assistant Examiner — Kathleen Jones (74) Attorney, Agent, or Firm — Leason Ellis LLP

CLAI

The ornamental design for a display screen or portion thereof with icon, as shown and described.

## DESCRIPTION

The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawings will be provided by the Office upon request and payment of the necessary fee. FIG. 1 is a front view of a display screen or portion thereof with icon showing a first embodiment of our invention; and, FIG. 2 is a front view of a display screen or portion thereof with icon showing a second embodiment of our invention. The brucken lines showing of a portion of a display screen of a communications terminal illustrate environment and form no part of the claimed design.

## 1 Claim, 2 Drawing Sheets (1 of 2 Drawing Sheet(s) Filed in Color)







Fig. 2

Knobbe Martens © 2021 Knobbe Martens 25

# Design Patent Examples - Typeface

	(45) Date of Patent: ** Oct. 12, 2004			
FONT	Adobe Type Library Reference Book, Goudy I fon			
or: Robert Slimbach, Mountain View, CA (US)	#7050-020 C, p. 156. Minion, a three-axis multiple master typeface, Adobe Systems Incorporated (1992).			
ee: Adobe Systems Incorporated, San Jose, CA (US)	Minion (1990). Minion Expert (1990). Minion Cyrillic (1992).			
14 Years	Minion MM (1992). Minion MM Expert (1992).			
No.: 29/173,119	Primary Examiner—Clare E Heflin			
Dec. 20, 2002	(74) Attorney, Agent, or Firm—Fish & Richardson P.C.			
Related U.S. Application Data	(57) CLAIM			
nation of application No. 29/118,187, filed on Oct.	The ornamental design for a type font, as shown and described.			
	DESCRIPTION			
	FIGS. 1-5 are a view of a first embodiment of the typefon			
	showing the design.  FIGS. 6-11 are a view of a second embodiment of the			
101/399	typefont showing the design.			
References Cited	FIGS. 12-16 are a view of a third embodiment of the typefont showing the design.			
U.S. PATENT DOCUMENTS	FIGS. 17-21 are a view of a fourth embodiment of the typefont showing the design.			
	FIGS. 22-27 are a view of a fifth embodiment of the			
1 S 6/1914 Benton 0 S 12/1914 Benton	typefont showing the design. FIGS. 28-32 are a view of a sixth embodiment of the			
8 S 4/1918 Benton	typefont showing the design.			
	FIGS. 33-37 are a view of a seventh embodiment of the			
3 S 2/1992 Slimbach	typefont showing the design. FIGS. 38-42 are a view of a eighth embodiment of the			
2 S 7/1992 Slimbach 4 S 7/1993 Slimbach	typefont showing the design.			
7 S 8/1993 Slimbach	FIGS. 43-48 are a view of a ninth embodiment of the			
	typefont showing the design. FIGS. 49-53 are a view of a tenth embodiment of the			
	typefont showing the design.			
OTHER PUBLICATIONS	FIGS. 54-59 are a view of a eleventh embodiment of the			
Library Reference Book, Garth Graphic font	typefont showing the design; and, FIGS. <b>60–64</b> are a view of a twelfth embodiment of the			
., p. 152.	typefont showing the design.			
	1 Claim, 64 Drawing Sheets			
ΔRC	DEE			
,				
cdefs	ghijk			
	nee: Adobe Systems Incorporated, San Jose, CA (US)  14 Years  No.: 29/173,119  Dec. 20, 2002  Related U.S. Application Data station of application No. 29/118,187, filed on Oct. 9, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10			

Oct. 12, 2004 Sheet 1 of 64 US D497,175 S ABCDEF GHIJKLM NOPQRS TUVWXY Z!@?&ab cdefghijk lmnopqrs FIG. 1

U.S. Patent



- No Design Patents or Utility Patent protection in the copy or executable code
- Copyright
  - Individual copy can be registered
  - Software executable code for user interfaces can be registered
  - Limited to direct copying



- Projections, holographic imagery, virtual reality and augmented reality interfaces are becoming more common
- Protection of these interfaces is not a settled question
  - Copyright and utility patent protection is likely available, subject to normal requirements
  - USPTO is currently accepting comments on availability of design patent protection

# Summary of Applicable IP – Interfaces

	Visual Displays	Info. Processing	Info. Exchange	Devices	User Inputs/ Methods	Fonts/ Typeface	Icons	Copy/Text	Executable Code	AR/VR, Projections, Holographs
Copyright		N/A	N/A	N/A	N/A	N/A				
Design Patents		N/A	N/A					N/A	N/A	ý
Utility Patents						N/A		N/A	N/A	



# **Knobbe Martens**

Presented by:

Mauricio A. Uribe Bryan G. McWhorter

January 12, 2021