# The fontawesome-free package Up-to-date LuaLTFX support for Font Awesome

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Version 1.2.0 (2024-12-17); includes version 6.7.2 of Font Awesome

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### 1 Introduction

There are several packages on CTAN that provide access to the free *Font Awesome* icons, but these have become outdated and are missing many icons from newer versions of Font Awesome. The fontawesome-free package attempts to deal with the update problem by building the LATEX support dynamically from data in the fonts themselves; updating the package is then as simple as replacing the font files with newer ones. The drawback of this approach is that the package only works with LualATEX.

## 2 Installation

This package is not (yet?) available from CTAN, so it must be installed manually; this is done by copying the contents of the texmf/directory to either your \$TEXMFLOCAL or your \$TEXMFHOME tree. Installing it in \$TEXMFLOCAL will make the package available to all users on the system, but may require administrator rights; installing it in \$TEXMFHOME makes it available just for you. The exact values of \$TEXMFLOCAL and \$TEXMFHOME depend on your TeX installation; see your installation's documentation for more information.

If you are using TeX Live, you can find the value of these variables by running

kpsewhich -expand-var '\$TEXMFLOCAL'

and similarly for \$TEXMFHOME.

## 3 Usage

The fontawesome-free package contains all icons from the free subset of the Font Awesome fonts. \fa The package provides one command, \fa, with a single mandatory argument: the \( name \) of the icon. Some icons have light or "open" variants, like \( \bar{\rho}\_{\text{por}} \) versus \( \bar{\rho}\_{\text{file-pdf}} \). Those variants are accessed by adding -o to the icon name: \( \fa\{file-pdf-o\} \) versus \\ fa\{file-pdf\}. A full list of icons and their names is included in the appendices.

\fa\* By default, the Font Awesome icons have varying widths. The \fa command has a starred variant \fa\* that produces fixed-width icons, by centering them in a 1.25em wide box.

## 4 Copyright

The Font Awesome fonts are Copyright 2024 Fonticons, Inc. (https://fontawesome.com) with Reserved Font Name: "Font Awesome". All other files are Copyright 2024 Marc Penninga.

### 5 License

The Font Awesome Free fonts are released under the SIL Open Font License, version 1.1. The rest of this package is released under the LaTeX Project Public License, version 1.3c.

All brand icons are trademarks of their respective owners. The use of these trademarks does not indicate endorsement of the trademark holder by Font Awesome or the author, nor vice versa. Please do not use brand logos for any purpose except to represent the company, product, or service to which they refer.

# Appendix A List of icons

address-bookaddress-book-o address-card address-card-o align-center align-justify align-left align-right anchoranchor-circle-check anchor-circle-exclamationanchor-circle-xmark ď₽ anchor-lock angle-downV < angle-left> angle-right angle-upangles-down **«** angles-left **>>** angles-right  $\Diamond$ angles-upankhapple-whole Ħ archwayarrow-down arrow-down-1-9 arrow-down-9-1 arrow-down-a-z arrow-down-long arrow-down-short-wide arrow-down-up-across-line arrow-down-up-lock ↓<del>.</del> arrow-down-wide-short₽¥ arrow-down-z-a  $\leftarrow$ arrow-left arrow-left-long  $\leftarrow$ arrow-pointer  $\rightarrow$ arrow-right arrow-right-arrow-left

[→ arrow-right-from-bracket  $\rightarrow$ arrow-right-long →] arrow-right-to-bracket→Ա arrow-right-to-city C arrow-rotate-leftG arrow-rotate-rightarrow-trend-down~7 arrow-trend-up arrow-turn-down arrow-turn-uparrow-up arrow-up-1-911 arrow-up-9-1 ↑å arrow-up-a-z arrow-up-from-bracket arrow-up-from-ground-water arrow-up-from-water-pump arrow-up-long arrow-up-right-dots arrow-up-right-from-square 住 arrow-up-short-wide **1**= arrow-up-wide-short ΛŽ arrow-up-z-a  $\overline{\uparrow\uparrow}$ arrows-down-to-linearrows-down-to-people $\leftrightarrow$ arrows-left-right |↔| arrows-left-right-to-line arrows-rotate arrows-spin arrows-split-up-and-left arrows-to-circle +\*+ arrows-to-dot  $^{3}O_{\kappa}^{K}$ arrows-to-eye 7 arrows-turn-rightarrows-turn-to-dots 1 arrows-up-down arrows-up-down-left-rightarrows-up-to-line8 atomAD audio-descriptionawardbaby

babu-carriage 44 backwardbackward-fast backward-stepbaconbacteriabacteriumbag-shopping bahai0 banban-smoking bandagebarcode $\equiv$ barsbars-progress bars-staggered baseballbaseball-bat-ball₩ basket-shopping basketball<u>-</u> bathbattery-empty battery-full battery-half battery-quarter battery-three-quarters bedbed-pulsebeer-mug-empty bell $bell\-concierge$ Ţ bell-oŻ bell-slash Ż bell-slash-o bezier-curve ॐ bicucleΪÌ binocularsbiohazardŒ blenderblender-phone blogВ bold

boltbolt-lightning bomb× bonebonqbookbook-atlas book-biblebook-bookmark  $book ext{-}journal ext{-}whills$ book-medicalbook-open i book-open-reader <u>©</u> <u>≈</u> book-quran book-skull book-tanakhbookmarkbookmark-o ⊞ border-all border-none $\Box$ border-top-left U bore-holebottle-dropletbottle-water bowl-food bowl-rice bowling-ball boxbox-archive box-open box-tissueboxes-packing boxes-stacked braillebrainbread-slice ₩ bridgebridge-circle-check₩ bridge-circle-exclamation₩ bridge-circle-xmarkbridge-lockП bridge-water

brief caseÔ briefcase-medical broombroom-ballbrushbucket亷 bug× buq-slash \*\* bugsĦ building  $building\-circle\-arrow\-right$ building-circle-check building-circle-exclamation Ħø. building-circle-xmark盦 building-columns Ħ, building-flag **₩** building-lock MEO building-ngo building-o殿  $building ext{-}shield$ building-un **#**: building-user ### building-wheat N bullhorn0 bull seyeburgerburstbusbus-simplebusiness-time 西墨田 cable-carcake-candles calculatorcalendarcalendar-checkcalendar-check-o 苗苗 calendar-day calendar-days calendar-days-o calendar-minuscalendar-minus-o

calendar-o ö calendar-plus calendar-plus-o calendar-week X calendar-xmark ☒ calendar-xmark-o Ô camera6 camera-retro Ø camera-rotate campgroundcandy-cane cannabiscapsulescarcar-battery 构 car-burstcar-on car-rear car-sidecar-tunnelæ caravancaret-down caret-leftcaret-right caret-up carrotcart-arrow-down cart-flatbed F.  $cart ext{-}flatbed ext{-}suitcase$ cart-plus cart-shopping cash-register catcertificatechairchalk board $chalk board ext{-}user$ champagne-glasses charging-station chart-area 匡 chart-bar

LΞ

chart-bar-o

chart-column 盂 chart-diagram chart-gantt <u>~</u> chart-linechart-pie ıll chart-simplecheckcheck-double check-to-slot cheeseİ chesschess-bishop chess-bishop-o chess-board chess-king chess-king-o <u>2</u> chess-knight chess-knight-o<u>•</u> Ω chess-pawn chess-pawn-o chess-queen chess-queen-o chess-rook丽 chess-rook-o V chevron-downchevron-left chevron-right chevron-up childchild-combatantchild-dresschild-reaching childrenŵ churchcircle0 circle-arrow-downcircle-arrow-left circle-arrow-rightcircle-arrow-up circle-check $\odot$ circle-check-o  $circle ext{-}chevron ext{-}down$ 

 $circle ext{-}chevron ext{-}left$ 0 circle-chevron-right circle-chevron-up circle-dollar-to-slot 0 circle-dot• circle-dot-o0 circle-down• circle-down-ocircle-exclamation 0 circle-h0 circle-half-stroke8 circle-info 0 circle-left circle-left-o 0 circle-minus 4  $circle{-nodes}$  $\circ$ circle-notch 0 circle-o0 circle-pause (11) circle-pause-o 0 circle-play circle-play-o 0  $circle ext{-}plus$ 0 circle-question 3 circle-question-o 3 circle-radiation 0 circle-right  $circle ext{-}right ext{-}o$ 0 circle-stop  $circle ext{-}stop ext{-}o$ • 0 circle-up • circle-up-o 8 circle-user (2) circle-user-o 3 circle-xmark  $\otimes$ circle-xmark-o**≝** cityclapperboardclipboardclipboard-check

clipboard-list

clipboard-o clipboard-question clipboard-userclockclock-o Ō  $clock ext{-}rotate ext{-}left$ ٠ cloneQ clone-o closed-captioning CC closed-captioning-oCC cloudcloud-arrow-down4 4 cloud-arrow-up cloud-bolt \* cloud-meatball cloud-moon cloud-moon-raincloud-raincloud-showers-heavy **\*** cloud-showers-water cloud-suncloud-sun-rain clover</>> codecode-branchcode-commitcode-compareပွဲ code-forkcode-merge $code ext{-}pull ext{-}request$ coinscommentØ comment-dollarcomment-dots  $\odot$ comment-dots-o  $comment{-}medical$ comment-nodes Ω comment-oX comment-slashcomment-sms commentscomments-dollar

comments-o0 compact-disccompasscompass-draftingcompass-ocompresscomputercomputer-mousecookiecookie-bite copycopy-o copyrightÖ copyright-ocouchM cowcredit-card<u>...</u> credit-card-o 乜 cropЦ crop-simplecrosscrosshairscrowcrownß crutch0 cubeå cubescubes-stackeddatabase× delete-left**₩** democratdesktopdharmachakra●194096 diagram-next $diagram ext{-}predecessor$ diagram-projectdiagram-successordiamonddiamond-turn-rightdicedice-d20dice-d6

<b>23</b>	dice-five
	dice- $four$
•	dice- $one$
	dice- $six$
	dice-three
	dice- $two$
*	disease
₽	display
Z	dna
Ħ	dog
Th	dolly
	$door ext{-}closed$
₽l	$door ext{-}open$
¥	dove
7 <sup>K</sup>	down-left-and-up-right-to-center
1	down- $long$
$lacktree \blacksquare$	download
2	dragon
区	draw- $polygon$
	droplet
8	$droplet ext{-}slash$
<b>F</b>	drum
<b>&amp;</b>	drum-steelpan
•	drumstick- $bite$
·思想什么因因为个个人,我们可有是这一种。	dumbbell
<del></del>	dumpster
TÔ	$dumpster ext{-}fire$
	dungeon
<i>D</i>	ear-deaf
<b>%</b>	ear- $listen$
6	earth-africa
9	earth-americas
<b>3</b>	earth- $asia$
<b>6</b>	earth-europe
<b>##</b>	earth-oceania
	egg
<b>=</b>	eject
<b>#</b>	elevator
•••	ellipsis
<u>:</u>	ellipsis-vertical
$\smile$	envelone.

envelope-circle-check

$\square$	$envelope ext{-}o$
	$envelope ext{-}open$
$\bigcirc$	envelope en-o
	$envelope\hbox{-}open\hbox{-}text$
	envelopes-bulk
•	eraser
m	ethernet
	expand
<b>●</b> ∷ :	explosion
0	eye
	$eye ext{-}dropper$
<b>Ø</b>	$eye ext{-}low ext{-}vision$
0	eye- $o$
Ø	eye- $slash$
Ø	$eye ext{-}slash ext{-}o$
8	face- $angry$
3	face- $angry$ - $o$
8	face- $dizzy$
<b>⊗</b>	face- $dizzy$ - $o$
<b>@</b>	$face ext{-}flushed$
9	face-flushed-o
@ <b>&amp;</b> <b>\text{\ti}\text{\texi{\text{\text{\text{\text{\text{\text{\text{\texi{\text{\texi{\text{\texi}\text{\text{\text{\tex{\text{\text{\text{\text{\text{\\ \ti}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}</b>	$face ext{-}frown$
(3)	face- $frown$ - $o$
8	face-frown-open
©	face-frown-open-o
<b>(B)</b>	face-grimace
<u></u>	face-grimace-o
<b>e</b>	face-grin
9	face-grin-beam
(2)	face-grin-beam-o
8	face-grin-beam-sweat
<b>©</b>	face-grin-beam-sweat-o
ě	face-grin-hearts
<b>⊚</b>	face-grin-hearts-o
<b>(2)</b>	face-grin-o
<b>8</b>	face-grin-squint
⊗	face- $grin$ - $squint$ - $o$
<b>B</b>	face- $grin$ - $squint$ - $tears$
$\mathfrak{G}$	face-grin-squint-tears-o
<b>(4)</b>	face- $grin$ - $stars$
☺	face- $grin$ - $stars$ - $o$

face-grin-tears **③** face-grin-tears-o face-grin-tongue face-grin-tongue-o face-grin-tongue-squint face-grin-tongue-squint-o (4) face-grin-tongue-wink face-grin-tongue-wink-o face-grin-wide face-grin-wide-o face-grin-wink face-grin-wink-o face-kiss face-kiss-beam face-kiss-beam-o  $\odot$ face-kiss-o face-kiss-wink-heart face-kiss-wink-heart-o 0 face-laugh 0 face-laugh-beam face-laugh-beam-o **②** face-laugh-o face-laugh-squint face-laugh-squint-o 0 face-laugh-wink face-laugh-wink-o face-meh face-meh-blank face-meh-blank-o (<u>:</u>) face-meh-o face-rolling-eyes face-rolling-eyes-o 1 face-sad-cry face-sad-cry-o 8 face-sad-tear face-sad-tear-o face-smileface-smile-beam face-smile-beam-o face-smile-o face-smile-wink

<b>©</b>	face-smile-wink-o
8	face-surprise
$\odot$	face-surprise-o
8	face-tired
(2)	face-tired-o
4	fan
÷	faucet
÷,	faucet-drip
ΙŒ	fax
1	feather
1	feather-pointed
豆	ferry
	file
	file-arrow-down
À	$file ext{-}arrow ext{-}up$
<b>1</b>	$file ext{-}audio$
<b>₽</b>	$file ext{-}audio ext{-}o$
to	$file ext{-}circle ext{-}check$
è	$file\-circle\-exclamation$
to	$file ext{-}circle ext{-}minus$
Ò	$file ext{-}circle ext{-}plus$
è	$file ext{-}circle ext{-}question$
B	$file ext{-}circle ext{-}xmark$
Ď	$file ext{-}code$
<u></u>	$file ext{-}code ext{-}o$
Esv	file-contract
CSV	file- $csv$
X	file- $excel$
×	file-excel-o
₽>	file- $export$
	$file ext{-}fragment$
	file-half-dashed
	file-image
	file-image-o
-51	file-import
	file-invoice
\$	file-invoice-dollar
	file-lines
	file-lines-o
	file-medical
	file- $o$

PDF

B

R

file-pdf

file-pdf-o

file-shield

file-signature file-video

file-video-o

file-word

file-word-o

file-zipper file-zipper-o

fill

film

filter

fire

fish

flag

flag-o

flask

folder

flag-usa

flask-vial

floppy-disk

floppy-disk-o

folder-closed

folder-minus

folder-closed-o

fish-fins

fill-drip

filter-circle-dollar

filter-circle-xmark

fire-extinguisher

fire-flame-curved

fire-flame-simple

flag-checkered

fingerprint

fire-burner

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file-waveform

file-powerpoint file-powerpoint-o

*file-prescription* 

file-pen

	folder-o
	folder-open
	folder-open-o
	folder-plus
ᄩ	folder-tree
Α	font
	font-awesome
$\Box$	font-awesome-o
	football
<b>&gt;&gt;</b>	forward
	forward-fast
H	forward- $step$
<b>A</b>	frog
$\odot$	futbol
$\odot$	futbol- $o$
Œ	gamepad
₽ì	gas-pump
<b>⊕</b>	gauge
❷	$gauge ext{-}high$
0	gauge-simple
0	gauge-simple-high
*	gavel
*	gear
Ф <sub>Ф</sub>	gears
	gem
$\Leftrightarrow$	gem- $o$
0	genderless
<b>⋞⊕⊕⋒⋒⋑⋑⋑⋑</b> ∧ <b>⋩</b> ≉♦♥○ <b>⋒</b> ₩₩∎⊡∄∰♀⋒	ghost
***	gift
m	gifts
	glass-water
<b>U</b>	glass-water-droplet
69	glasses
•	globe
<u> </u>	golf- $ball$ - $tee$
••••	gopuram
	graduation-cap
	grip
=	grip-lines
  :	grip-lines-vertical
       	grip-vertical
25	group- $arrows$ - $rotate$

0	guitar
F	gun
>	hammer
₩	hamsa
•	hand
ě	$hand ext{-}back ext{-}fist$
ረን	hand-back-fist-o
₩	hand-dots
	$hand ext{-}fist$
	hand- $holding$
\$	hand-holding-dollar
١	hand-holding-droplet
1-111-1-17	$hand ext{-}holding ext{-}hand$
Ž	hand-holding-heart
÷	$hand \hbox{-} holding \hbox{-} medical$
7	$hand ext{-}lizard$
5)	$hand ext{-}lizard ext{-}o$
•	hand-middle-finger
<b>.</b>	hand- $o$
<b>%</b>	hand-peace
8	$hand ext{-}peace ext{-}o$
<u> </u>	hand-point-down
P	$hand ext{-}point ext{-}down ext{-}o$
<u>-:9</u>	$hand ext{-}point ext{-}left$
<b>B</b> D	$hand ext{-}point ext{-}left ext{-}o$
Œ	hand-point-right
Œ	hand-point-right-o
	hand-point-up
F	hand-point-up-o
<b></b>	hand-pointer
<b>*</b>	hand- $pointer$ - $o$ $hand$ - $scissors$
8	hand-scissors-o
<b>*</b>	hand- $sparkles$
*	hand-spock
<b>%</b>	hand-spock-o
66	hand cuffs
<b>ॐ</b>	hands
Ég	hands-asl-interpreting
<u>ين</u>	hands-bound
<b>*</b>	hands- $bubbles$

Š	$hands ext{-}clapping$
60	hands- $holding$
6	$hands\hbox{-}holding\hbox{-}child$
6	$hands ext{-}holding ext{-}circle$
M	hands- $praying$
ı <b>%</b> ı	handshake
<b>4</b>	$hand shake \hbox{-} angle$
(3)	$handshake \hbox{-} o$
	$hand shake\hbox{-}simple$
***	hand shake-simple-slash
ЖĮ	$hand shake\hbox{-}slash$
س	hanukiah
	hard- $drive$
	hard- $drive$ - $o$
<u>=</u>	$hat ext{-}cowboy$
4	$hat ext{-}cowboy ext{-}side$
A	$hat ext{-}wizard$
	$head\mbox{-}side\mbox{-}cough$
<b>S</b>	head-side-cough-slash
<b>1</b>	head-side-mask
	head-side-virus
Η	heading
$\mathbf{O}$	head phones
$\mathbf{O}$	$head phones\hbox{-}simple$
•	headset
•	heart
€	heart-circle-bolt
<b>%</b>	heart-circle-check
<b>%</b>	heart-circle-exclamation
<b>%</b>	heart-circle-minus
€	heart-circle-plus
<b>%</b>	heart-circle-xmark
<b>⋄</b>	heart-crack
	heart-o
<b>€</b>	heart-pulse
	helicopter
( <del>1</del> )	helicopter-symbol
<b>4</b>	helmet-safety
林	helmet-un
49 141	hexagon-nodes
	hexagon-nodes-bolt
Q	highlighter

hill-avalanche hill-rockslide hippohockey-puck holly-berry horsehorse-headhospitalhospital-o9. hospital-user hot-tub-person hotdoghotelhourglasshourglass-end hourglass-half hourglass-half-o hourglass-o hourglass-starthousehouse-chimney 13 house-chimney-crack Û house-chimney-medical 召 house-chimney-user house-chimney-window house-circle-check house-circle-exclamation house-circle-xmark 1 house-crack fo house-fire house-flag house-flood-water house-flood-water-circle-arrow-right house-laptop house-lock house-medicalhouse-medical-circle-check **Co** house-medical-circle-exclamation**C**  $house ext{-}medical ext{-}circle ext{-}xmark$ house-medical-flag house-signal

house-tsunami 4 house-user hurricanei-cursor ice-creamiciclesiconsid-badqeid-badge-oid-cardĖ id-card-clip **:** id-card-o A iglooimageimage-o8 image-portrait imagesimages-oinbox互 indentindustry  $\infty$ infinity i infoΙ italicŌ jar*jar-wheat* ₩ jedijet-fighter *jet-fighter-up* jointjug-detergent kaabakeykeyboardkeuboard-o **(** khandakit-medical kitchen-set kiwi-bird 宣 land-mine-onlandmarklandmark-dome

landmark-flag ΑĒ languagelaptop<u></u> laptop-codelaptop-file  $\blacksquare$ laptop-medical \$ layer-group ø leafleft-long left-right  $\leftrightarrow$ lemonlemon-olife-ring life-ring-o lightbulbÔ lightbulb-olines-leaning ര link3% link-slash E listžΞ list-check<u>1</u>≡ list-ollist-ul 1 location-arrow • location-crosshairs location-dotlocation-pin location-pin-lock locklock-open locustlungslungs-virusmagnetmagnifying-glass  $magnifying\mbox{-}glass\mbox{-}arrow\mbox{-}right$ magnifying-glass-chartQ magnifying-glass-dollar magnifying-glass-location  $magnifying\mbox{-}glass\mbox{-}minus$ magnifying-glass-plus M map

181	map-location
121	map-location-dot
W	map-o
	map- $pin$
3	marker
ď	mars
<b>Ç</b>	mars-and-venus
<b>∜Ç</b> "	mars- $and$ - $venus$ - $burst$
Ů Ů Ů Ů Ů Ů Ů Ů Ů	mars- $double$
ď	mars- $stroke$
O#	mars- $stroke$ - $right$
ð	mars- $stroke$ - $up$
Y	martini- $glass$
Ÿ	$martini\mbox{-}glass\mbox{-}citrus$
Y	$martini\mbox{-}glass\mbox{-}empty$
Ø	mask
•	mask- $face$
	$mask ext{-}ventilator$
<b>(B)</b>	masks-theater
	mattress-pillow
<b>X</b>	maximize
0	medal
	memory
¥	menorah
<u> </u>	mercury
	message
ب •	message-o meteor
<u>.</u>	microchip
.B.	microchip microphone
Œ,	microphone- $lines$
<b>Æ</b>	microphone-lines-slash
<b>1</b>	microphone-slash
<b>1</b> 2	microscope
ÄŘ	minimize
	mitten
	mobile
Ĭ	mobile-button
	mobile-retro
ō	mobile-screen
Ö	mobile- $screen$ - $button$
_	

	$money\mbox{-}bill$
(O)	money-bill-1
0	money-bill-1-o
(0)	money-bill-1-wave
<b>EZ</b>	money-bill-transfer
<b>≈</b>	money-bill-trend-up
	money-bill-wave
=>>> <b>€C</b>	$money\mbox{-}bill\mbox{-}wheat$
	money-bills
	money-check
\$=	money-check-dollar
▲	monument
	moon
C	moon-o
400分輪米編為	$mortar ext{-}pestle$
îm	mosque
*	mosquito
₩#	mosquito-net
<b>∂</b> €	motorcycle
	mound
	mountain
	mountain-city
<b>A</b>	$mountain ext{-}sun$
<b>~</b>	$mug ext{-}hot$
	mug-saucer
77	music
용	$network ext{-}wired$
P	neuter
	newspaper
	newspaper-o
	note- $sticky$
$\Box$	note- $sticky$ - $o$
₽	notes- $medical$
	object- $group$
	object- $group$ - $o$
됴	$object ext{-}ungroup$
r T	object-ungroup-o
•	oil- $can$
<b>运</b> 35	$oil ext{-}well$
35	om
<u>~</u>	otter
亞	outdent

)	pager
)	paint- $roller$
1	paintbrush
•	palette
I	pallet
•	panorama
1	paper-plane
1	paper-plane-o
	paperclip
•	$parachute ext{-}box$
	paragraph
	passport
	paste
)	paste-o
	pause
•	paw
•	peace
•	pen
•	pen- $clip$
•	$pen ext{-}fancy$
•	pen- $nib$
	pen- $ruler$
i	$pen\mbox{-}to\mbox{-}square$
7	$pen\mbox{-}to\mbox{-}square\mbox{-}o$
•	pencil
į	$people\hbox{-}arrows$
Ż	people-carry-box
Þ	people- $group$
<u>.</u>	people- $line$
•	$people ext{-}pulling$
ĺ	$people ext{-}robbery$
ì	$people{-}roof$
•	pepper-hot
	person
<u>L</u>	$person\hbox{-}arrow\hbox{-}down\hbox{-}to\hbox{-}line$
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ruler-combined shopsquare-binary shop-lockس ruler-horizontal square-caret-downsquare-caret-down-oruler-verticalshop-slash ă sack-dollar showersquare-caret-leftĒ square-caret-left-o sack-xmark shrimp**X** square-caret-rightshufflesailboatlacksquare $shuttle ext{-}space$ square-caret-right-o satellitesquare-caret-up  $satellite ext{-}dish$ *sign-hanging* square-caret-up-o4 signalscale-balanced ull  $\checkmark$ <u>.Z</u>\_ square-checksignature $scale ext{-}unbalanced$ square-check-o 470 signs-postscale-unbalanced-flip square-envelope Ĥ sim-cardschoolsquare-full sink**F** school-circle-check ሑ square-full-o sitemap₽ô school-circle-exclamationsquare-h**P** skullschool-circle-xmark square-minus  $skull\mbox{-}crossbones$ e fe school-flag square-minus-oslashschool-locksquare-nfi sleighscissors**≅** square-oslidersscrewdriverP *square-parking* smoqscrewdriver-wrench square-pen smokingscrollsquare-person-confined snow flake\$ scroll-torahC square-phone snowflake-o sd-cardsquare-phone-flip snowmansectionsquare-plus snowplowseedling $\oplus$ square-plus-o ä soapserversquare-poll-horizontal socksshapessquare-poll-vertical 毌 solar-panel share $square \hbox{-} root \hbox{-} variable$ sortshare-from-square 2 square-rsssort-down share-from-square-o 3 square-share-nodes sort-up < share-nodessquare-up-right sheet-plastic square-virus spaghetti-monster-flying shieldsquare-xmarkspell-check 0 shield-catstaff-snakespidershield-dog stairsspinner0 shield-halved stampsplotchO shield-heart staplerspoonshield-virusstarspray-can shipstar-and-crescentspray-can-sparkles shirt1 star-half squareshoe-prints 1 star-half-o square-arrow-up-right

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# Appendix B List of brands

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