



- (51) International Patent Classification:
A63G 31/00 (2006.01) *H04N 9/31* (2006.01)
G06F 3/01 (2006.01)
- (21) International Application Number:
PCT/US2023/032090
- (22) International Filing Date:
06 September 2023 (06.09.2023)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
63/403,981 06 September 2022 (06.09.2022) US
63/495,954 13 April 2023 (13.04.2023) US
18/242,444 05 September 2023 (05.09.2023) US
- (71) Applicant: **UNIVERSAL CITY STUDIOS LLC**
[US/US]; 100 Universal City Plaza, Universal City, California 91608 (US).
- (72) Inventors: **KRAUTHAMER, Akiva Meir**; 1000 Universal Studios Plaza, Orlando, Florida 32819 (US). **GARNIER, Timothy Fitzgerald**; 1000 Universal Studios Plaza, Orlando, Florida 32819 (US).
- (74) Agent: **POWELL, W. Allen** et al.; P.O. Box 692289, Houston, Texas 77269 (US).
- (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,

(54) Title: TANGIBLE/VIRTUAL DESIGN SYSTEMS AND METHODS FOR AMUSEMENT PARK ATTRACTION DESIGN

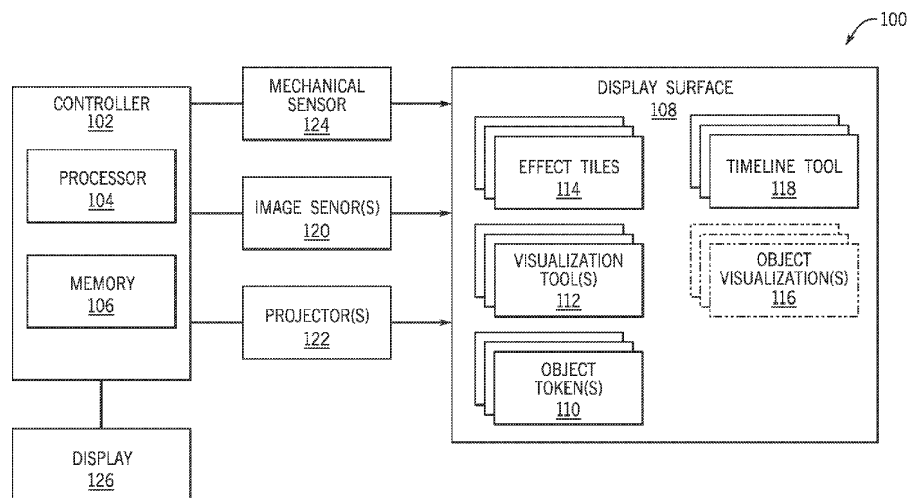


FIG. 1

(57) Abstract: An amusement park attraction design system may include an object token having a first tracker coupled to a first projection surface, a visualization tool having a second tracker, and an image sensor that generates location data based on the first tracker and the second tracker. The amusement park attraction design system may also include a controller communicatively coupled to the image sensor and a projector. The controller may receive the location data from the image sensor to determine the object token and the visualization tool based on the first tracker and the second tracker, respectively. The controller may also receive image content based on an interaction between the object token and the visualization tool and send an indication of the image content to be projected. The projector may receive the indication of the image content and project the image content onto the first projection surface.

[Continued on next page]

MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

- (84) Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*