



- (51) **International Patent Classification:**
G06F 17/50 (2006.01)
- (21) **International Application Number:**
PCT/US2018/021980
- (22) **International Filing Date:**
12 March 2018 (12.03.2018)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
62/469,986 10 March 2017 (10.03.2017) US
- (71) **Applicant:** PATCO LLC [US/US]; 14401 W. 65th Way,
Unit B, Arvada, Colorado 80004 (US).
- (72) **Inventors:** VANKER, John Louis; 959 Gaylord Street,
Denver, Colorado 80209 (US). LASTOWSKI, Michael J.;
9079 E. Panorama Circle, Unit 405, Centennial, Colorado
80112 (US).
- (74) **Agent:** LOMENICK, John T.; 216 16th Street, Suite 1350,
Denver, Colorado 80201 (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, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP,
KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME,
MG, MK, MN, 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, SM, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

- (84) **Designated States** (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, 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, 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).

Published:

— with international search report (Art. 21(3))

(54) **Title:** SMART PLANS

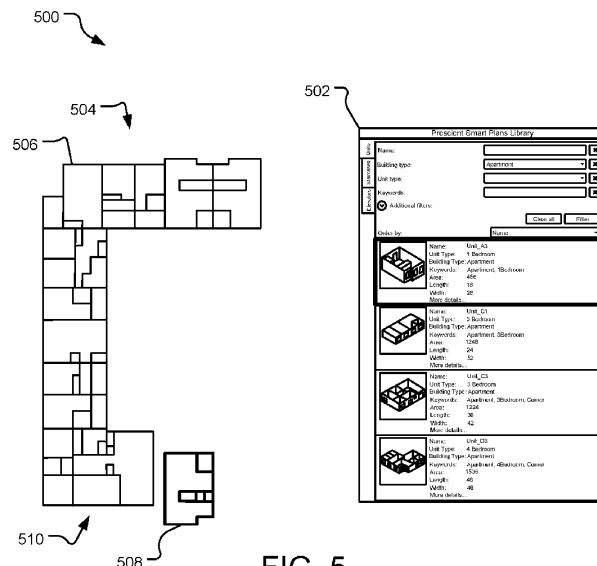


FIG. 5

(57) **Abstract:** A smart plan portal that is used in conjunction with a computer aided design (CAD) software application module. The smart plan portal provides a library of predefined elements that are presented for selection and placement for building design. Each placed element automatically integrates with adjacent elements and the overall building design. Based on the building design using the library of elements, structural components and equipment components are generated. Each component is associated with a digital identifier that is used to identify a number of attributes for the associated component.