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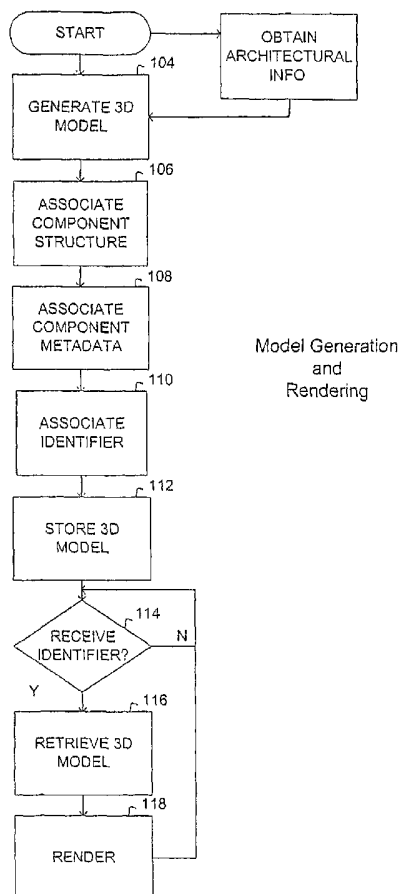
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[Continued on next page]

(54) Title: SYSTEMS AND METHODS FOR 3D MODELING AND ASSET MANAGEMENT



(57) Abstract: A 3D modeling system is configured to generate a 3D model from a plurality of architectural, engineering and construction information related to a physical asset being modeled (104, 106, 108, 110, 112, 114, 116, 118). The 3D model (112) is based on component models that are associated (108) with specific geometry, geo-positioning, lighting, acoustics, and other real world features or characteristics. The 3D model can also be turned into the physical asset and storing the 3D model and the associations in a database for retrieval and management of the digital asset.



(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/40161

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/50
US CL : 703/1, 6, 13; 700/103

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 703/1, 6, 13; 700/103

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/0023412 A1 (RAPPAPORT et al.) 30 January 2003 (30.01.2003), Abstract, Figures 1-19, Summary of the Invention, page 3, col. 2, lines 0037 et seq.	1-200
X	US 4,939,668 A (BROWN et al.) 03 July 1990 (03.07.1990), Abstract, Figures 1-21, col. 1, lines 30 et seq., col. 4, lines 52 et seq.	1-200
X	US 6,134,338 A (SOLBERG et al.) 17 October 2000 (17.10.2000), Abstract, figures 1-18, col. 10, lines 15 et seq.	1-200
X	US 4,551,810 A (LEVINE) 05 November 1985 (05.11.1985), Abstract, Figures 26G, col. 13, lines 22 et seq.	1-200

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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"Y"

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"&"

document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:

EAST

Search terms: CAD or CAM or CIM or (computer near2 architecture), plumbing, electrical, mechanical, GPS, model, shell