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- (71) Applicant: **LANDMARK GRAPHICS CORPORATION** [US/US]; 2107 City West Blvd., Bldg. 2, Houston, TX, 77042 (US).
- (72) Inventors: **XU, Zitao**; 22527 Crownfield Lane, Katy, Texas 77450 (US). **SHI, Genbao**; 17523 Indian Springs CT, Sugar Land, Texas 77479 (US). **CHIEN, Chikang David**; 2846 Field Line, Sugar Land, Texas 77479 (US). **YARUS, Jeffrey**; 2107 CityWest Blvd., Bldg. 2, Houston, Texas 77042 (US). **CHAMBERS, Richard L.**; 2107 City-West Blvd., Bldg. 2, Houston, Texas 77042 (US).
- (74) Agents: **MADDEN, Robert, B.** et al.; P.O. Box 2938, Minneapolis, Minnesota 55402 (US).
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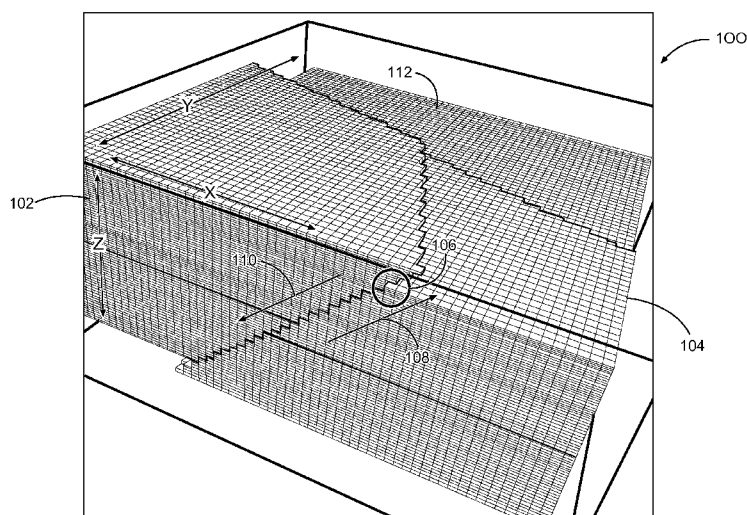


Fig. 1

(57) Abstract: A method to generate a global grid may include storing at least one data structure representing a plurality of fault blocks associated with one or more faults in a geographic formation; selecting two fault blocks associated with a fault of the one or more faults; changing the position of a first of the two fault blocks in the at least one data structure representative of a shift of the first fault block towards the center of gravity of a fault boundary of the other fault block; aligning the first fault block with the other fault block according to a permitted level of conflict between fault blocks; and updating the at least one data structure to indicate a merging of the two selected fault blocks.

