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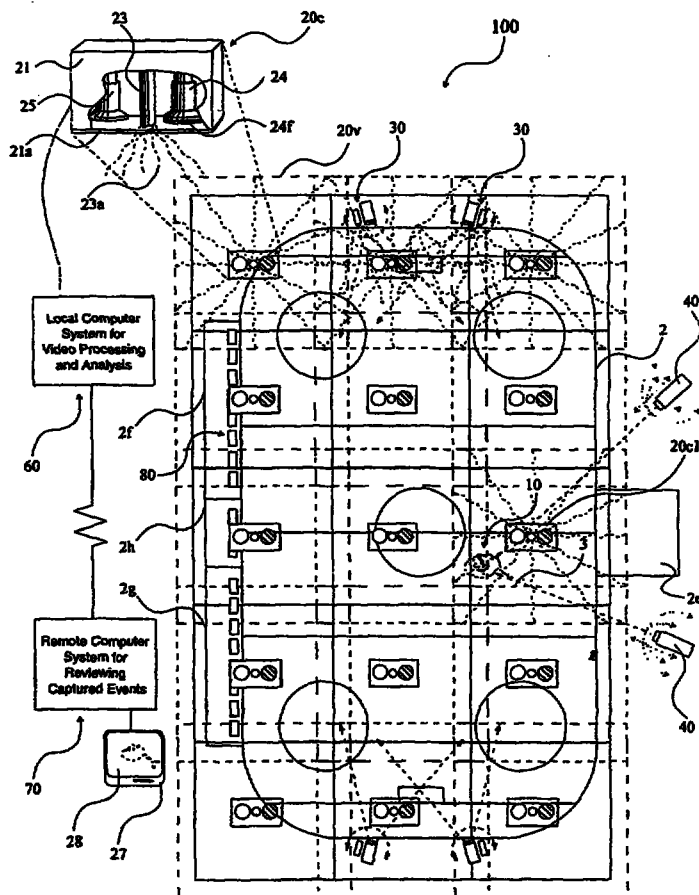
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(54) Title: MULTIPLE OBJECT TRACKING SYSTEM



(57) Abstract: A system (100) for tracking the movement of multiple objects within a predefined area using a combination of overhead X-Y filming cameras (25) and tracking cameras (24) with attached frequency selective filter (24f). Also employed are perspective Z filming cameras (25) and tracking (24) cameras with filter (24f). Objects to be tracked have been marked with a frequency selective reflective material, such as patches (7r and 7l), sticker (9) and tape (4a). System (100) radiates selected energy (23a) throughout the area of tracking to reflect off said reflective materials. Reflected energy such as (7m, 9a and 4b) is then received by tracking cameras (24) while all other ambient light is blocked by filter (24f). Local Computer System (60) captures images from tracking cameras (24) and locates said markings. Using said location information along with preknowledge concerning said multiple objects maximum rate of speed and maximum size as well as calculated movement information, system (60) is able to extract the background of the unfiltered images (25) that represent said multiple objects.

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