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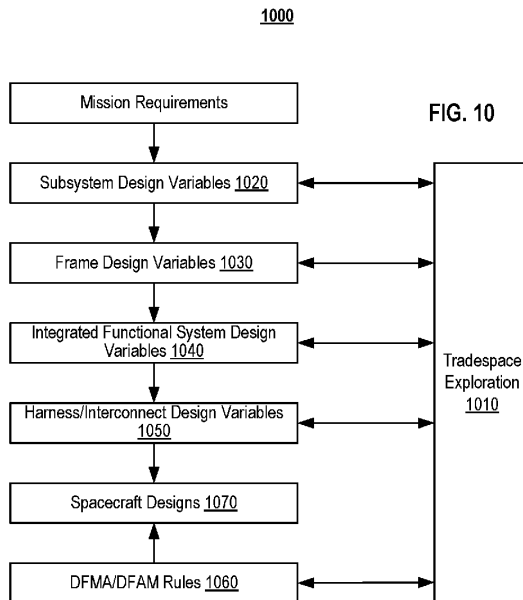
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(54) Title: METHODS AND SYSTEMS FOR AUTOMATED SPACECRAFT DESIGN



(57) Abstract: A method for automated spacecraft design includes receiving mission parameters provided by a client for spacecraft design, generating one or more concept designs based on the received mission parameters, a concept design including one or more components selected for each subsystem included in a designed spacecraft, for the concept design, automating a generation of a frame design that accommodates the one or more components selected for each subsystem included in the designed spacecraft, the frame design being a Computer Aided Design (CAD) model that includes individual frame pieces generated, sized and fitted automatically via automated scripts compatible with a CAD system, including one or more structural design software applications; performing a series of analyses or simulations to evaluate a performance of the frame design; and generating a digital twin representing a virtual representation of the designed spacecraft based on the generated frame design and the series of analyses and simulations.

SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, KM, ML, MR, NE, SN, TD, TG).

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- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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