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(54) Title: A SUPERVISED AUTONOMOUS ROBOTIC SYSTEM FOR COMPLEX SURFACE INSPECTION AND PROCESSING

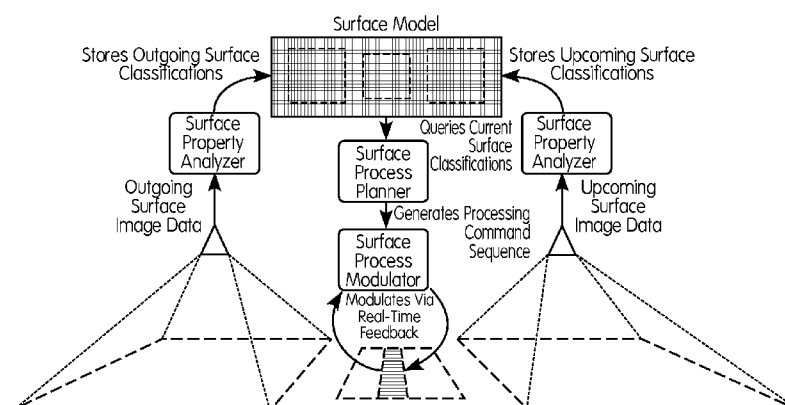


FIG. 1

(57) Abstract: The invention disclosed herein describes a supervised autonomy system designed to precisely model, inspect and process the surfaces of complex three-dimensional objects. The current application context for this system is laser coating removal of aircraft, but this invention is suitable for use in a wide variety of applications that require close, precise positioning and maneuvering of an inspection or processing tool over the entire surface of a physical object. For example, this system, in addition to laser coating removal, could also apply new coatings, perform fine-grained or gross inspection tasks, deliver and/or use manufacturing process tools or instruments, and/or verify the results of other manufacturing processes such as but not limited to welding, riveting, or the placement of various surface markings or fixtures.





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