

[54] METHOD AND APPARATUS FOR MODIFICATION OF A PRERECORDED PROGRAMMED SEQUENCE OF MOTIONS DURING EXECUTION THEREOF BY A ROBOT

[75] Inventor: Jeffrey S. Noss, Bay Village, Ohio

[73] Assignee: Nordson Corporation, Amherst, Ohio

[21] Appl. No.: 354,315

[22] Filed: Mar. 3, 1982

[51] Int. Cl.³ G06F 15/46; G05B 19/42

[52] U.S. Cl. 364/513; 318/568; 364/193; 901/3; 901/7; 901/43

[58] Field of Search 364/513, 474, 478, 171, 364/188, 189, 146, 147, 191, 192, 193; 318/568; 414/730, 744; 239/69, 70; 901/2-5, 7, 41-43

[56] References Cited

U.S. PATENT DOCUMENTS

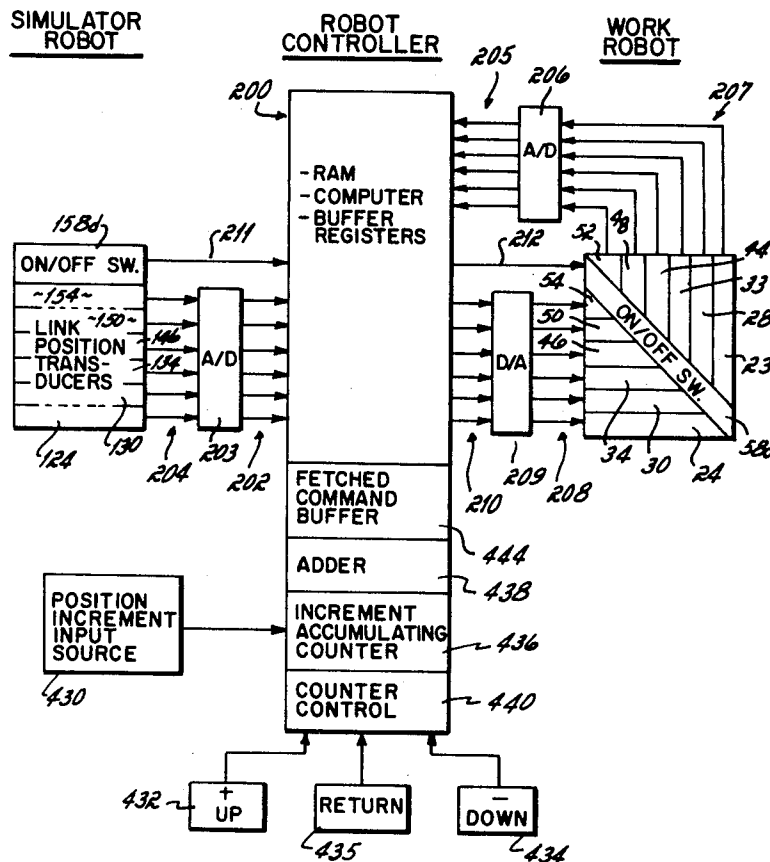
3,971,000	7/1976	Cromwell	364/189 X
4,021,651	5/1977	Mitsuhashi et al. .	
4,025,838	5/1977	Watanabe .	
4,132,938	1/1979	Sano et al. .	
4,140,953	2/1979	Dunne .	
4,409,649	10/1983	Heeger	364/144

Primary Examiner—Joseph F. Ruggiero
Attorney, Agent, or Firm—Wood, Herron & Evans

[57] ABSTRACT

A method and apparatus for real time editing, or modifying, of a program of prerecorded robot motions stored in a robot controlled memory while it is being processed by the controller for subsequent storage of the program, as edited, in memory and output to the robot for execution.

14 Claims, 10 Drawing Figures



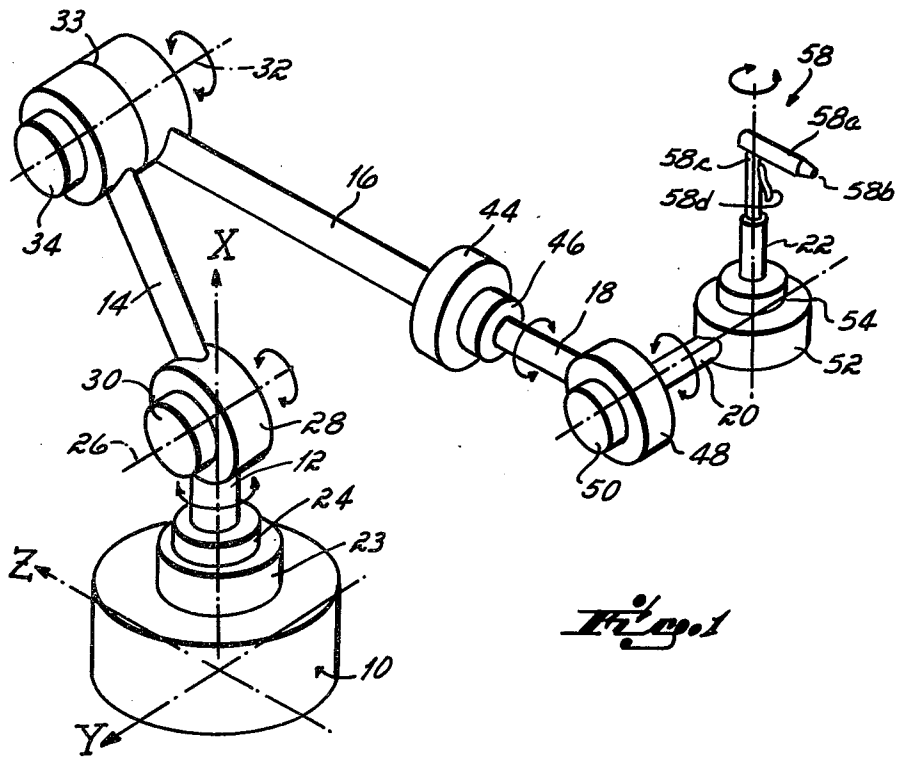


Fig. 1

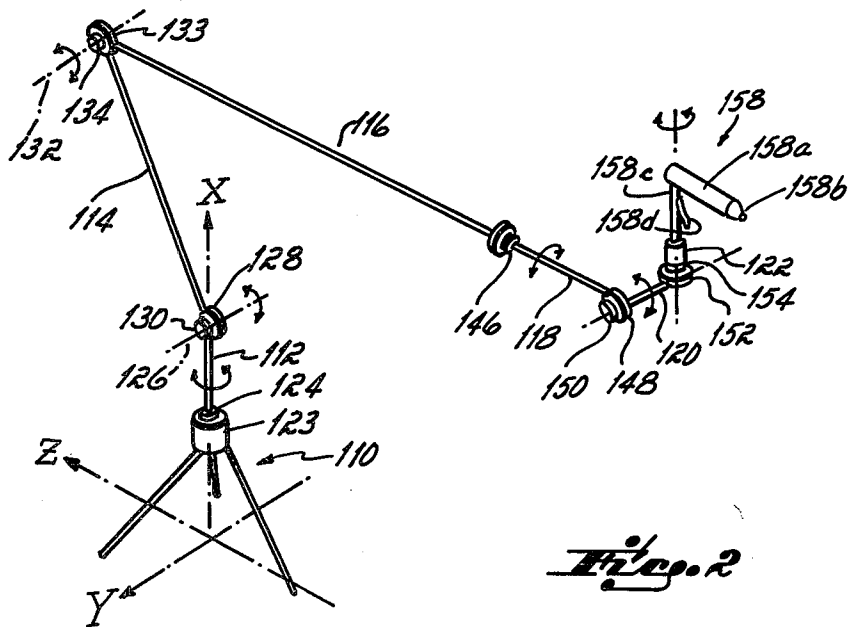
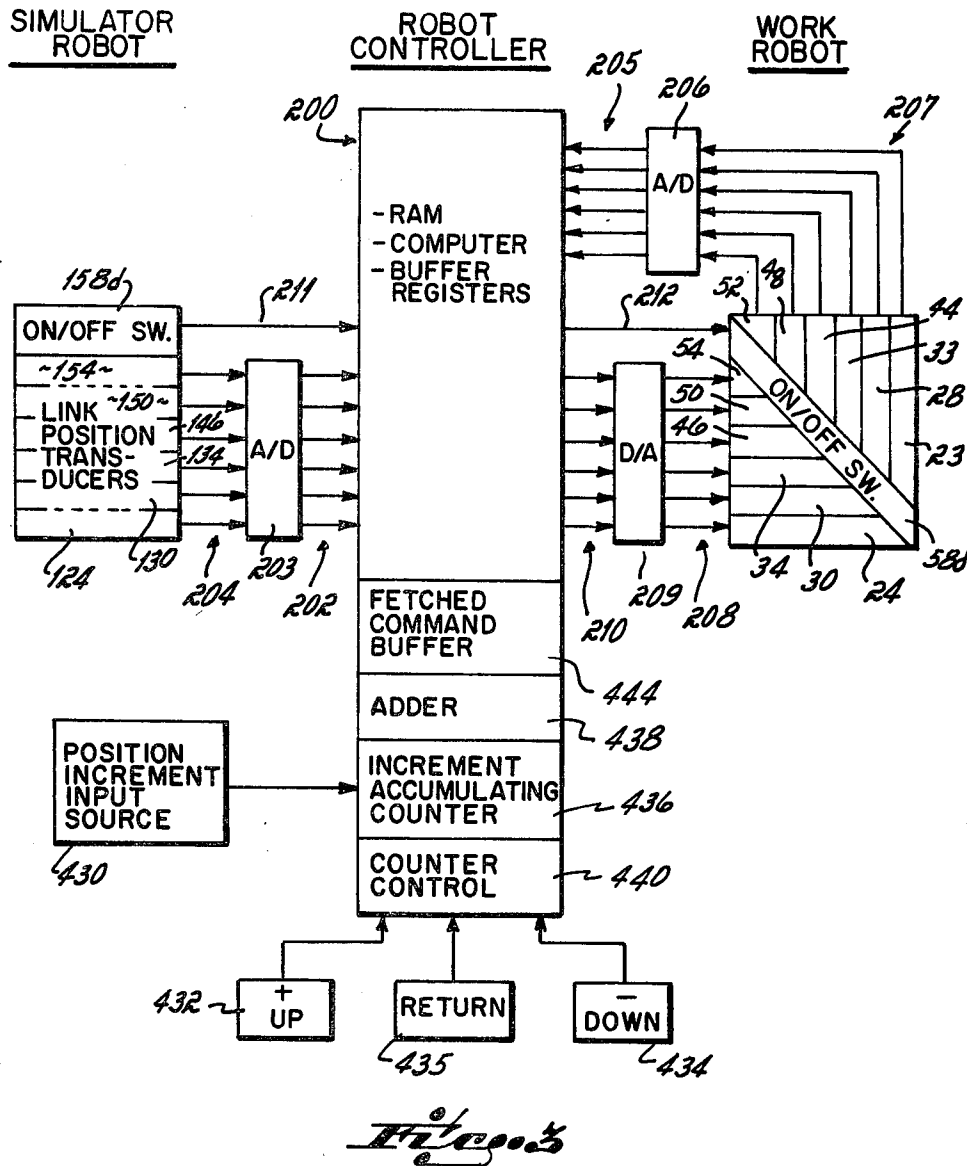


Fig. 2



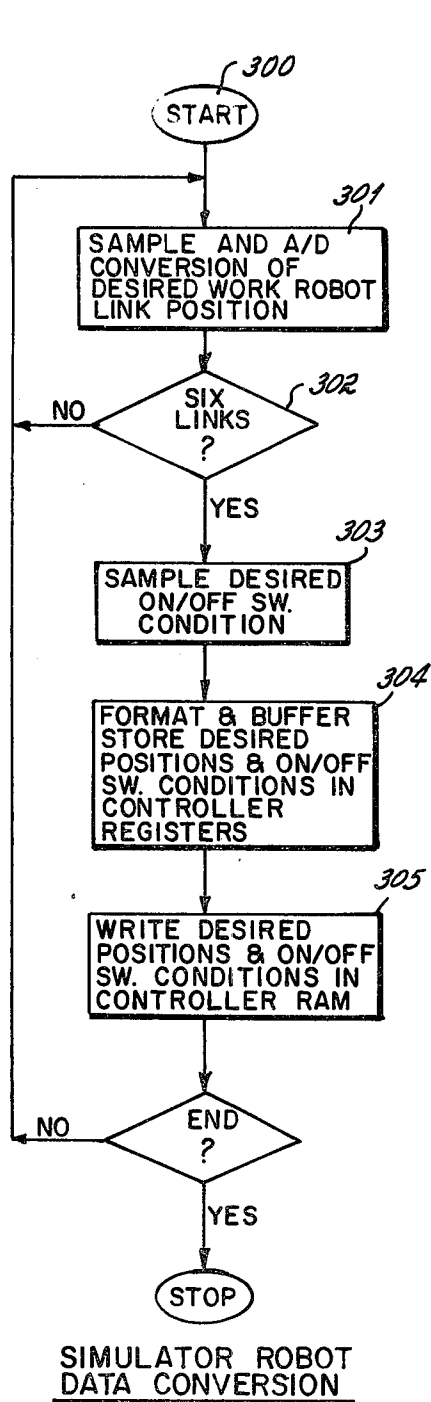


Fig. 4a

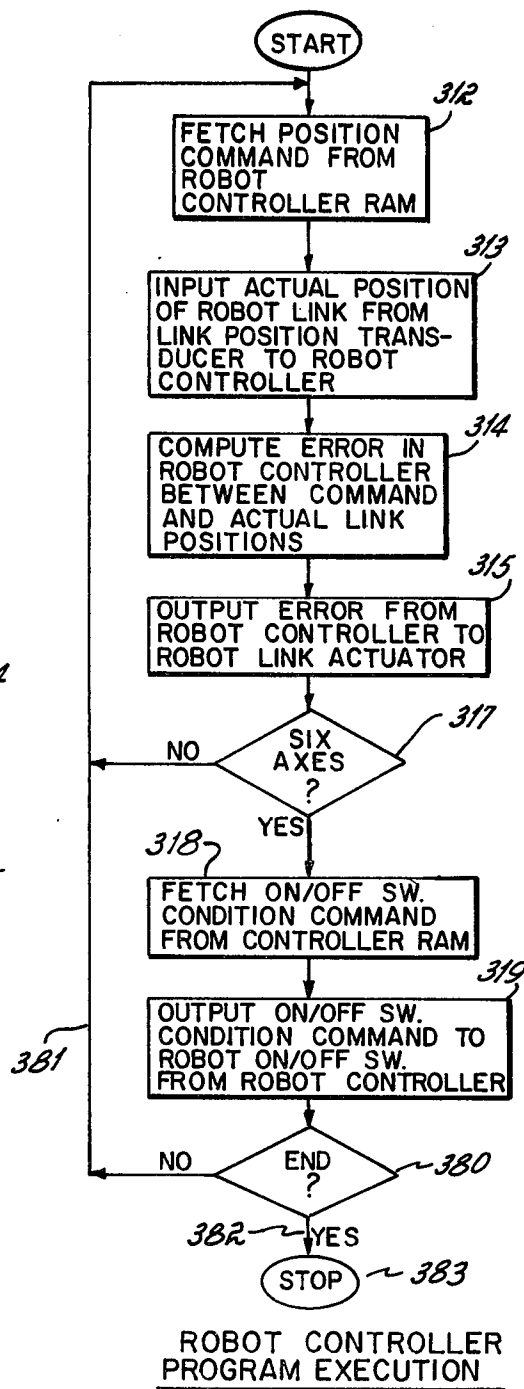
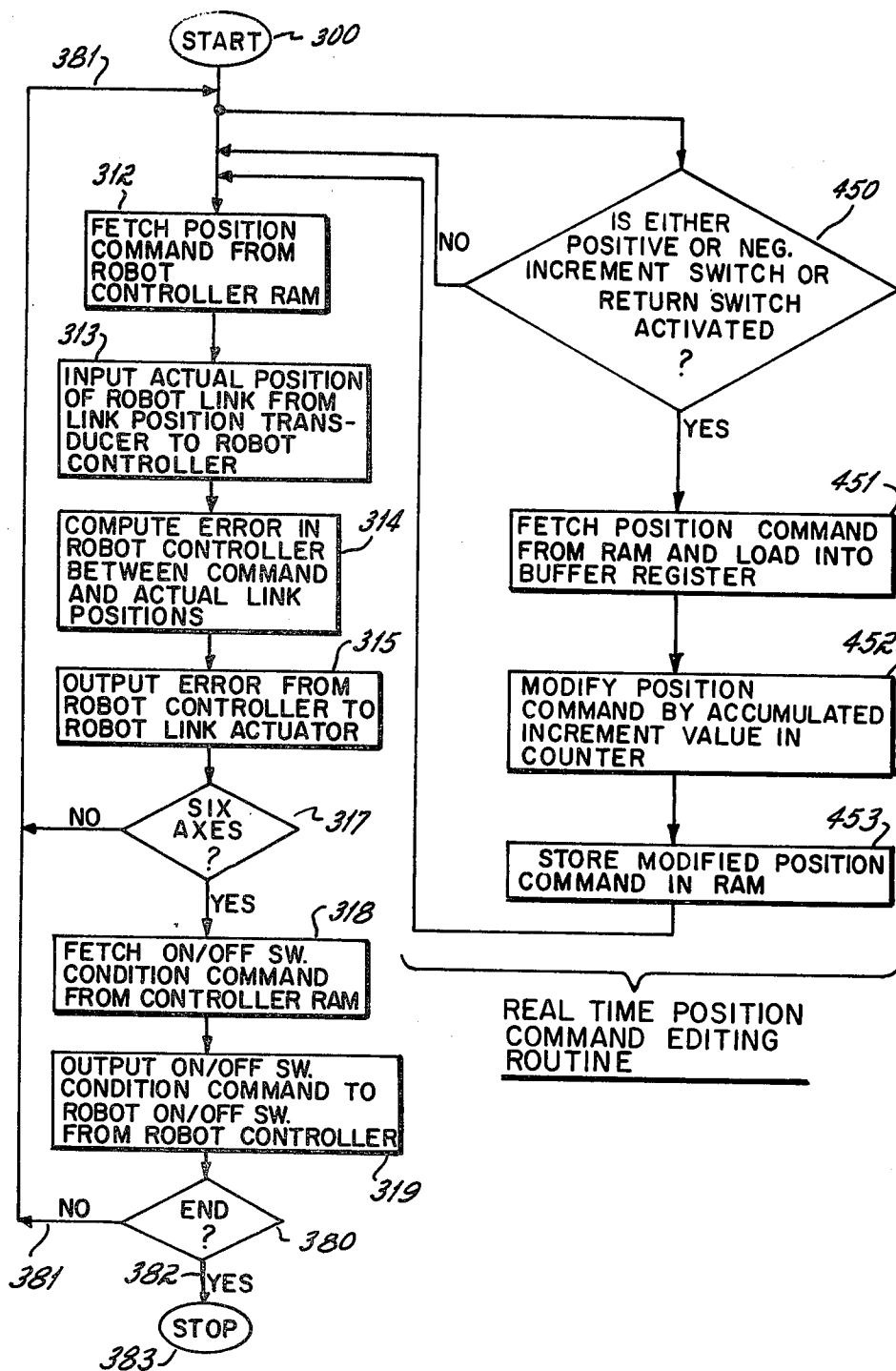


Fig. 4b



ROBOT CONTROLLER PROGRAM
EXECUTION WITH POSITION COMMAND EDITING

Fig. 5a

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.