

(12) **United States Patent**  
**Sinex**

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- (54) **AIRCRAFT MAINTENANCE PROGRAM MANAGER**
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- (73) Assignee: **Sinex Holdings, LLC**, Duluth, MN (US)
- (\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 460 days.

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- (21) Appl. No.: **09/728,579**
- (22) Filed: **Dec. 1, 2000**
- (65) **Prior Publication Data**  
US 2001/0032114 A1 Oct. 18, 2001

**Related U.S. Application Data**

- (60) Provisional application No. 60/168,400, filed on Dec. 1, 1999.
- (51) **Int. Cl.<sup>7</sup>** ..... **G01C 21/00**
- (52) **U.S. Cl.** ..... **701/29; 340/439; 340/500; 340/971; 395/50; 395/60; 705/26**
- (58) **Field of Search** ..... **701/29, 30, 31, 701/103, 35; 340/439, 500, 945, 971; 395/50, 60, 614, 615; 705/26; 707/103, 104; 235/375**

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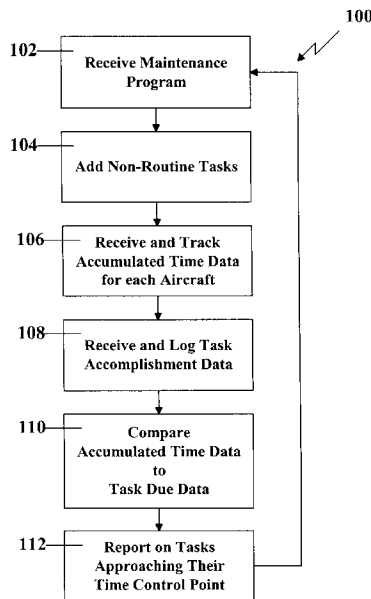
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(57) **ABSTRACT**

A system for managing an aircraft maintenance program for an aircraft operated by an operator includes means for extracting maintenance tasks for the aircraft from at least one aircraft maintenance document, means for sorting the maintenance tasks into initial maintenance task groups having common control points, and means for guiding the airline operator to organize the maintenance tasks and initial maintenance task groups into a plurality of maintenance task groups.

**20 Claims, 19 Drawing Sheets**



(TRACKING MANAGER)

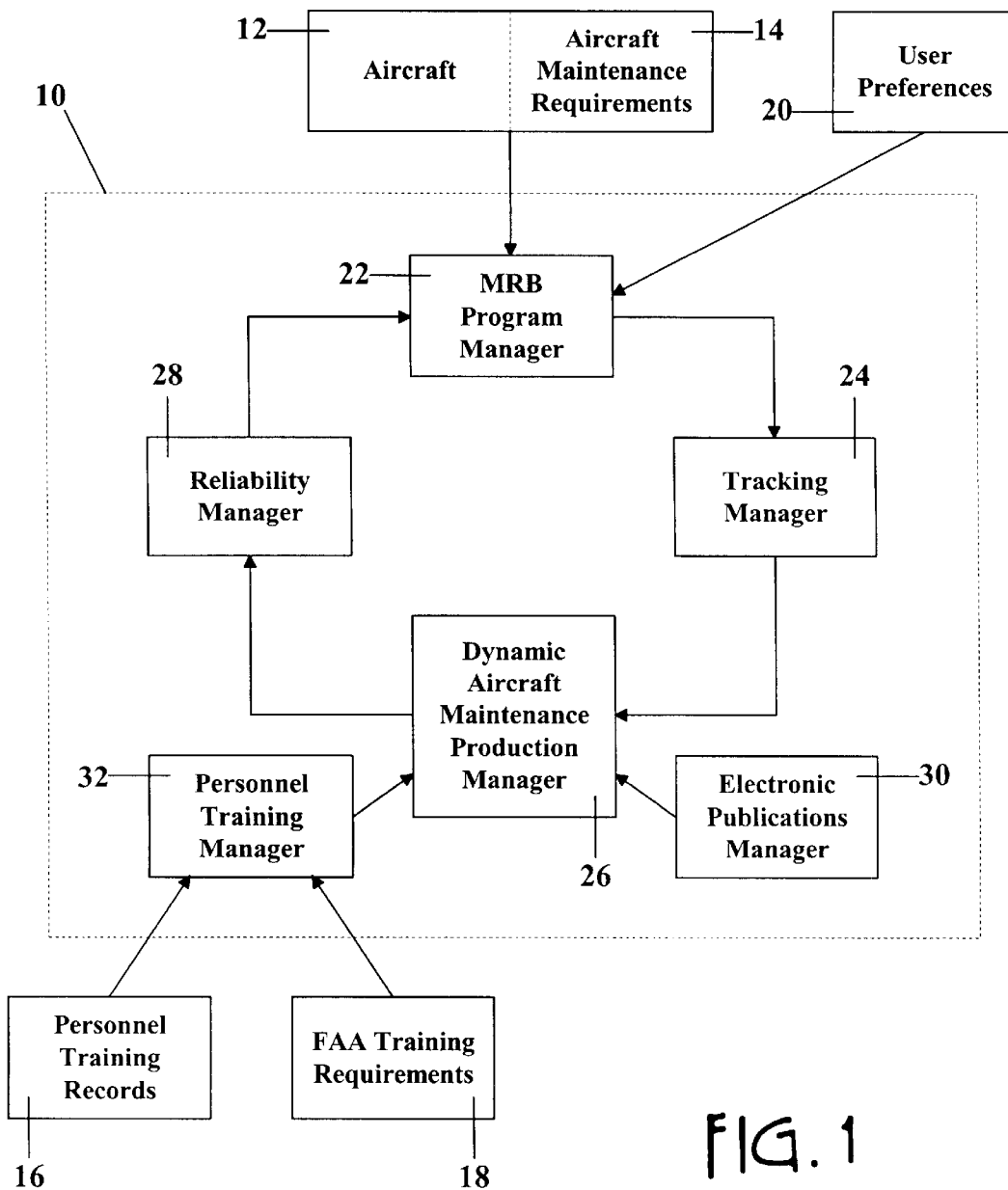


FIG. 1  
(SYSTEM OVERVIEW)

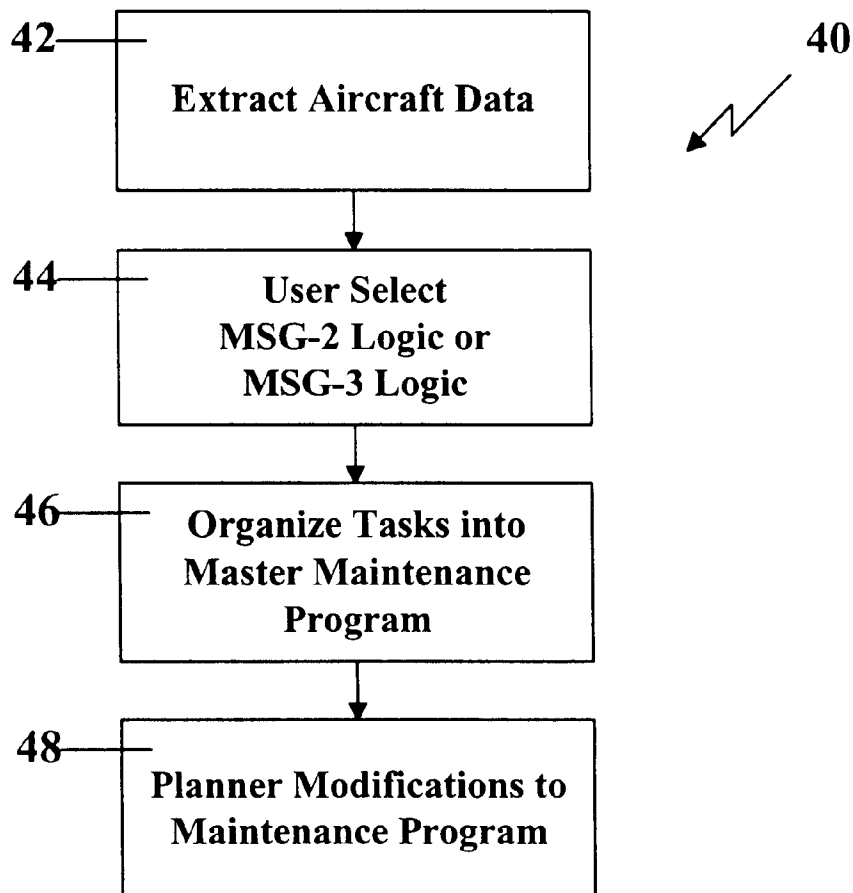


FIG. 2

(MRB PROGRAM MANAGER)

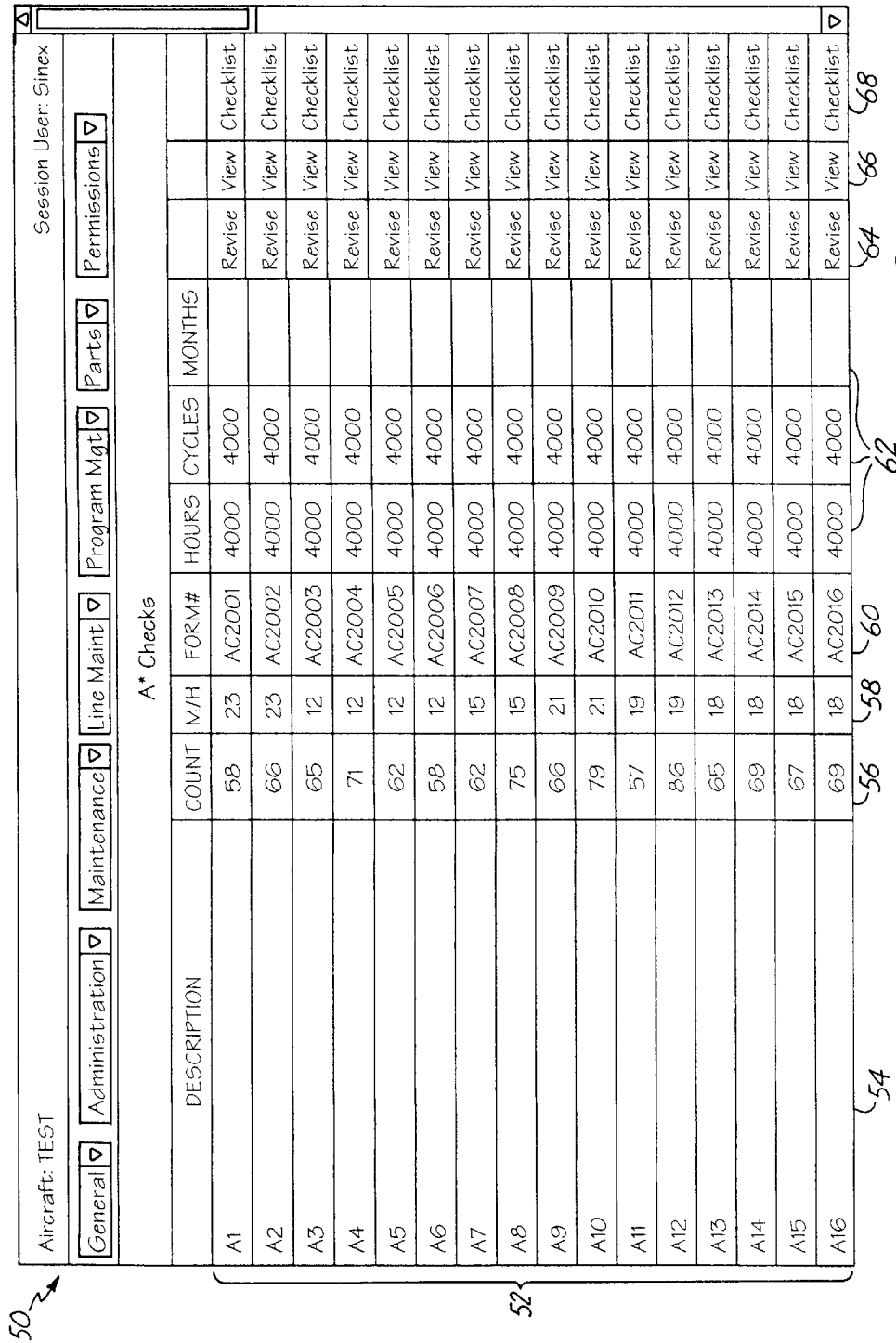


FIG. 3

61-13	Check SECONDARY LOW-PITCH STOP (BETA) operation. O	400FH	0.1	OP	221, 222, 411, 421	revise
61-13	Check SECONDARY LOW-PITCH STOP (BETA) operation. O	400FH	0.1	OP	221, 222, 411, 421	revise
71-10	Verify DRAIN COLLECTOR TANK RETURN LINE check valves operation. O	1C	0.1	OP	433	revise
71-12	Check EEC N <sub>h</sub> OVERSPEED PROTECTIVE FUNCTION OPERATION (MSI 73-20-02). O	600FH	0.45	OP	221	revise
760-07	Check flight idle stop system. O	1A	0.08	OP	221, 222	revise
79-10	Check engine model PW118/118A/118B chip detector. NOTE - According to manufacturer's recommendation approved by Canadian DOT. (See MRB Appendix 8.7 or MPG Appendix VI). O	SPECIAL	0.17	OP	412	revise
UPPER FUSELAGE ABOVE CABIN FLOOR						
24-08	Test MAIN BATTERY load capacity. O	5A	0.9	FC	115	revise
24-09	Check MAIN BATTERY electrolyte level. 1	1A	0.5	IN	115	revise
5310-131-02E	Toilet flush valve support. NOTE - Applicable to FWD lavatory installation only. 1	1A	0.08	ESU	131, 132	revise
2710-143-01E	Perform external surveillance in wing center section. Lower skin panel and access panels from CL to wing rib 3. Requires fairing removal. 1	2A	3	ESU	143	revise
TAILCONE & EMPENNAGE GROUP						
322-01Z	ZONE 322 - DORSAL FIN - Perform external surveillance of the zone, including visual examination of the vortex generators (Pre-Mod. SB 120-055-0008). 1	1A	0.08	ISU	322	revise
323-01Z	ZONE 323 - VERTICAL STABILIZER LEADING EDGE - Perform external surveillance of the zone, including visual examination of the vortex generators (Pre-MOD. SB 120-055-0008). 3	1A	0.08	ESU	323	revise
326-01Z	ZONE 326 - RUDDER I - Perform external surveillance of	1A	0.17	ESU	326	revise

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FIG. 4

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