

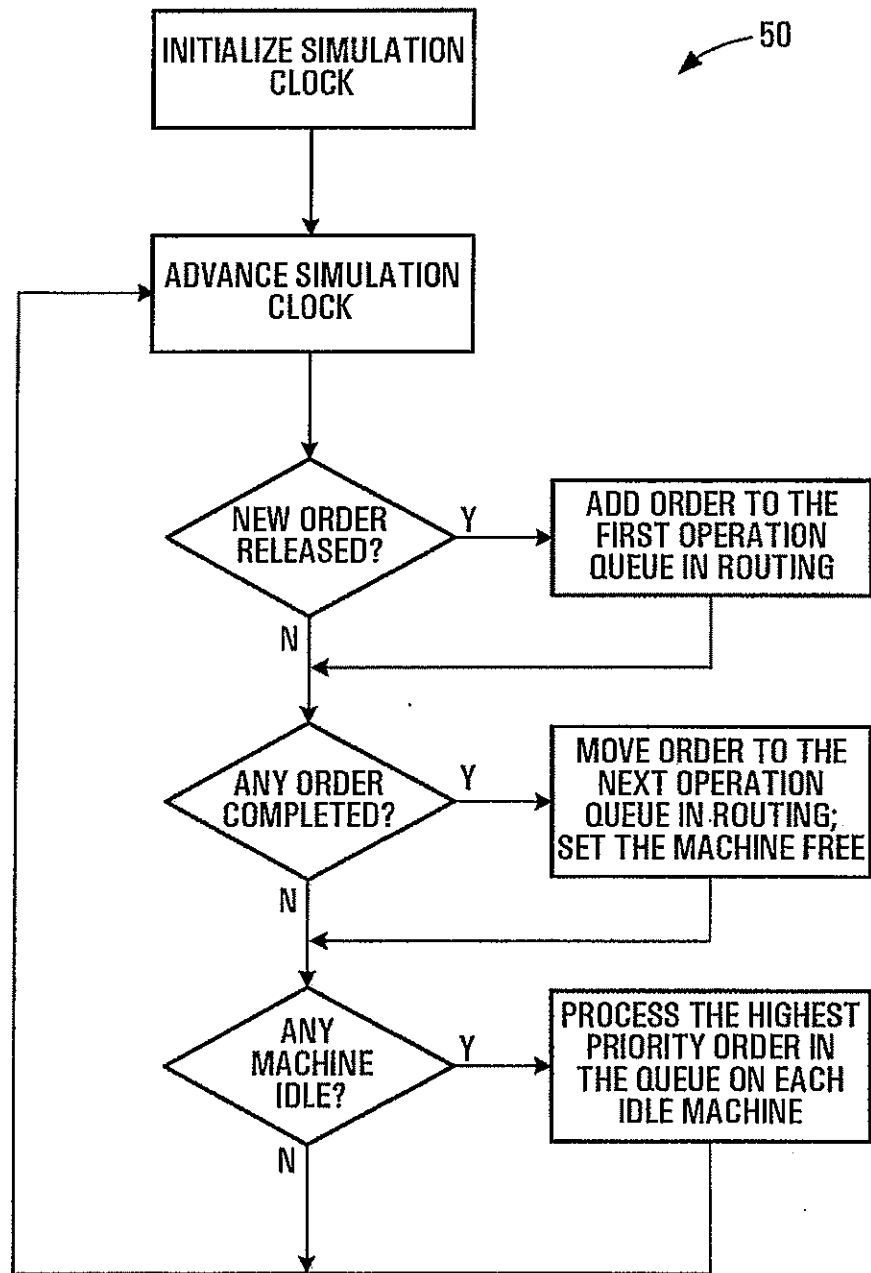


FIG. 1
(PRIOR ART)

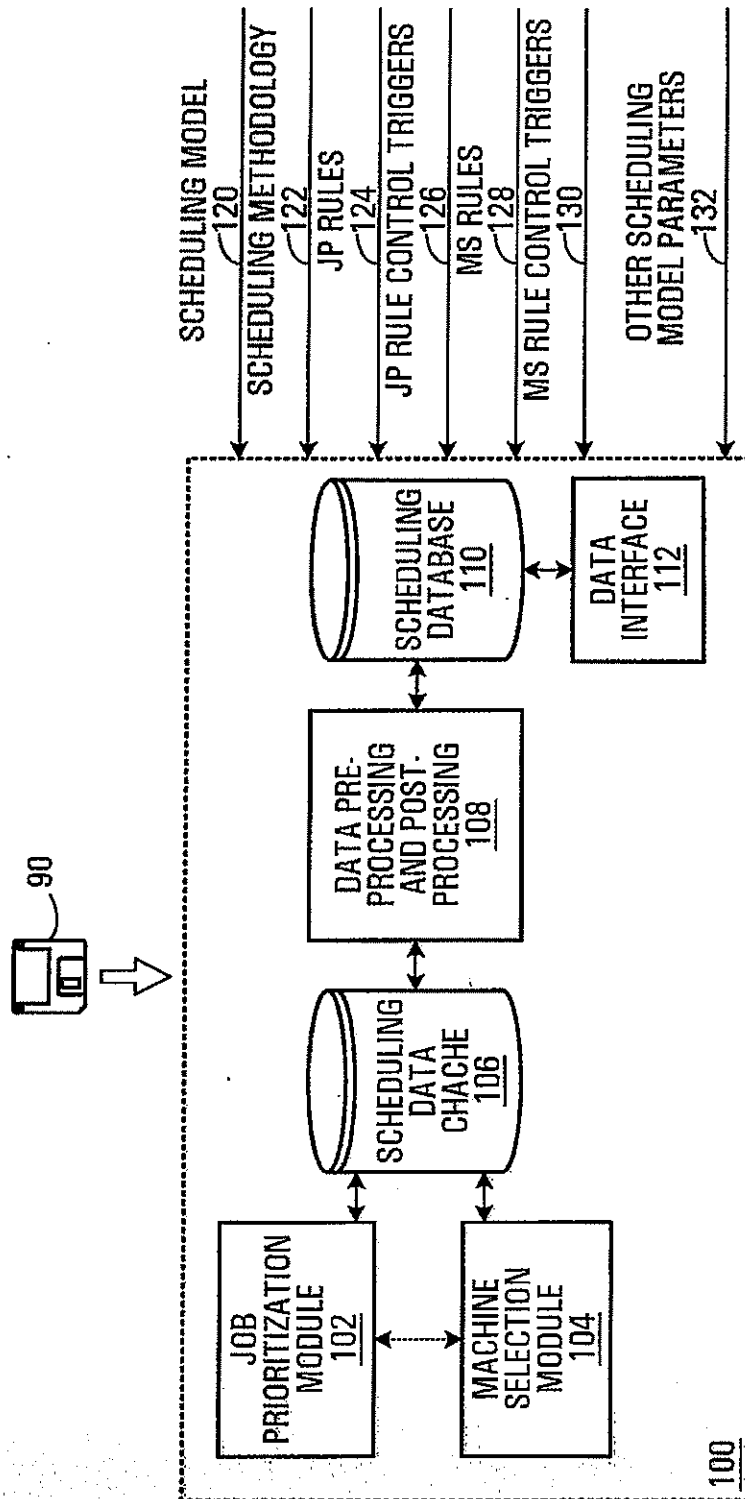


FIG. 2

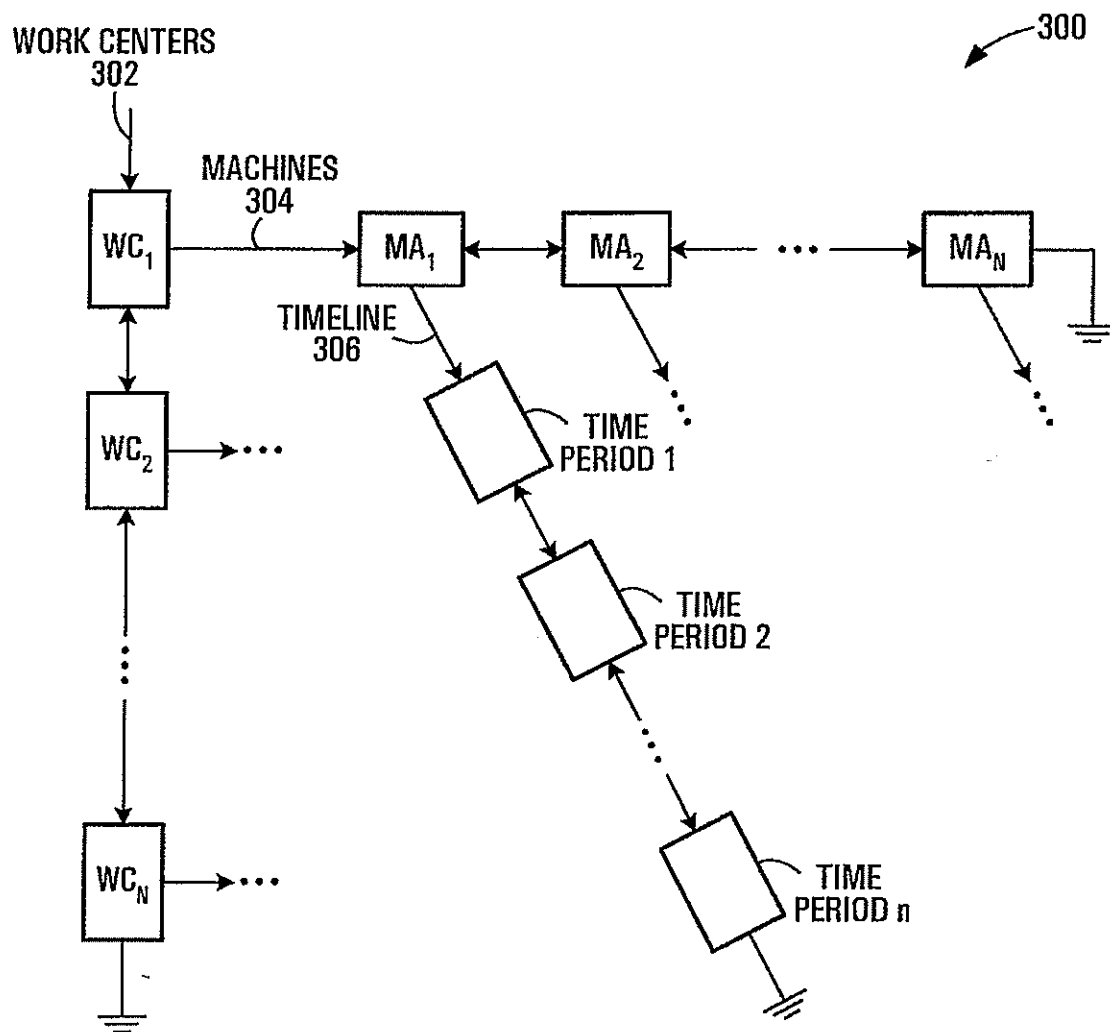


FIG. 3

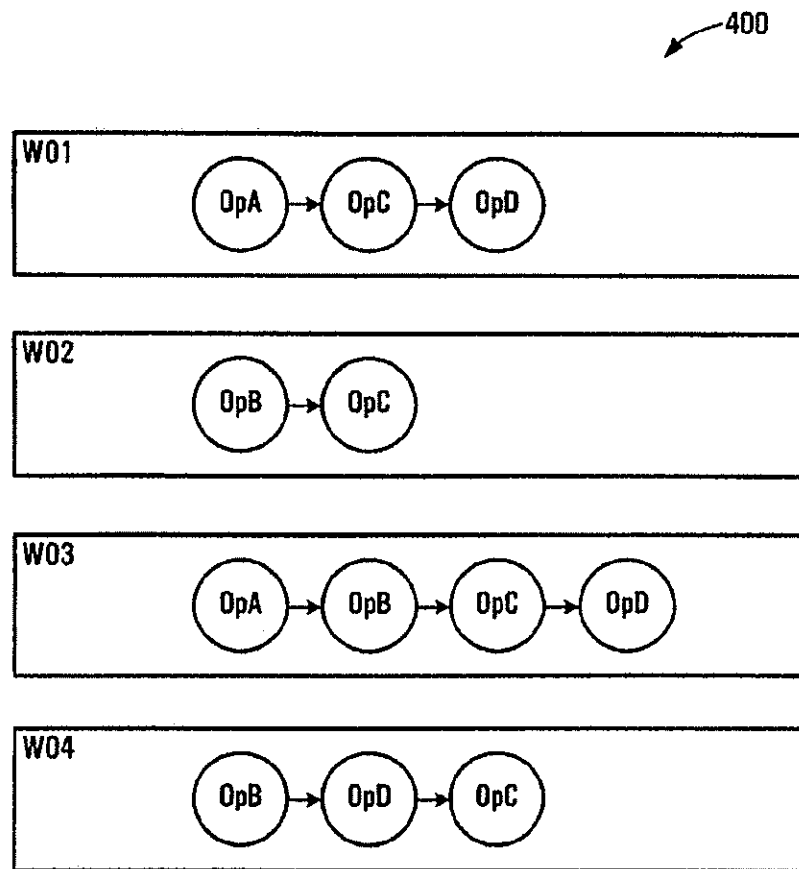


FIG. 4

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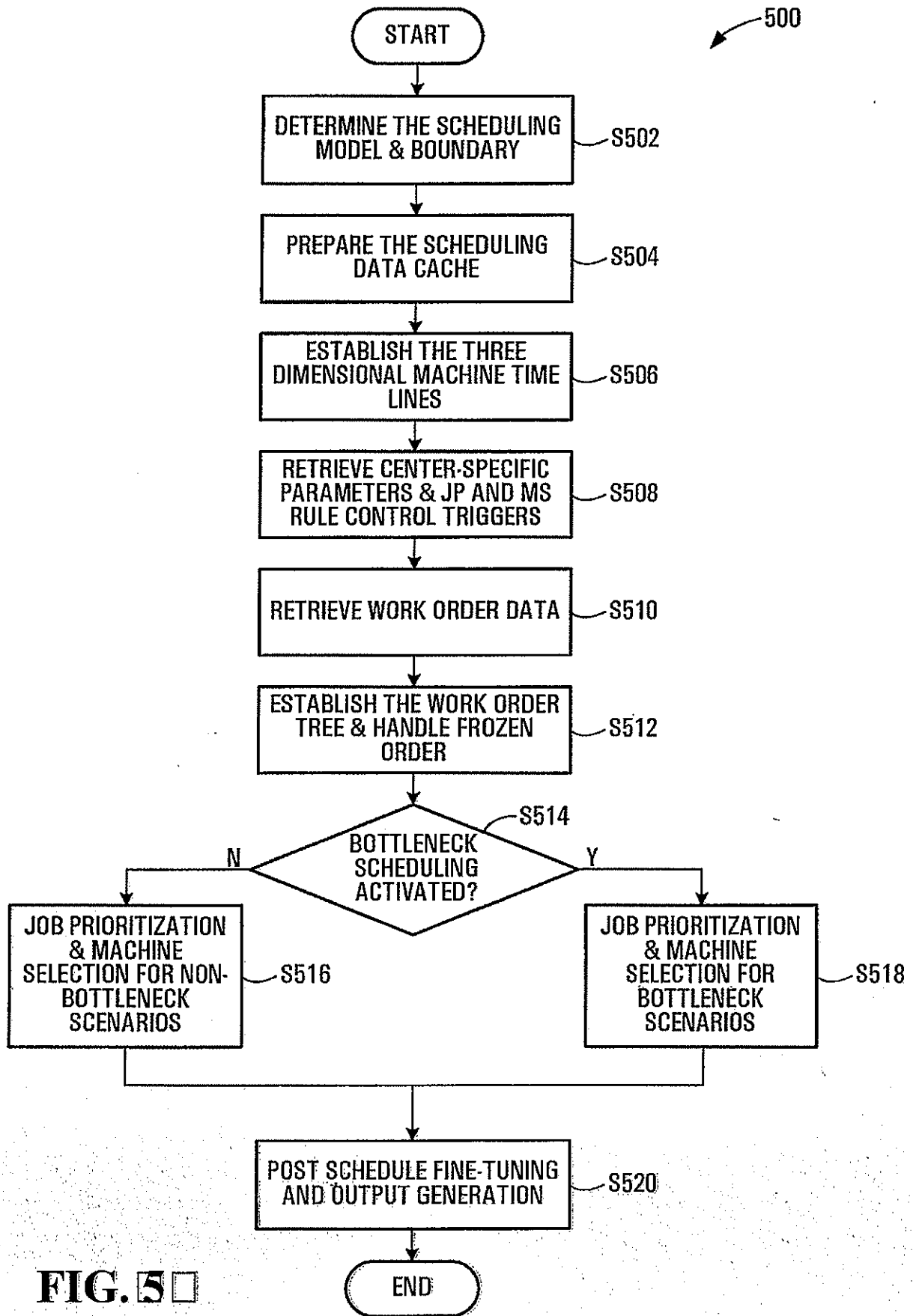


FIG. 5



FIG. 6

+

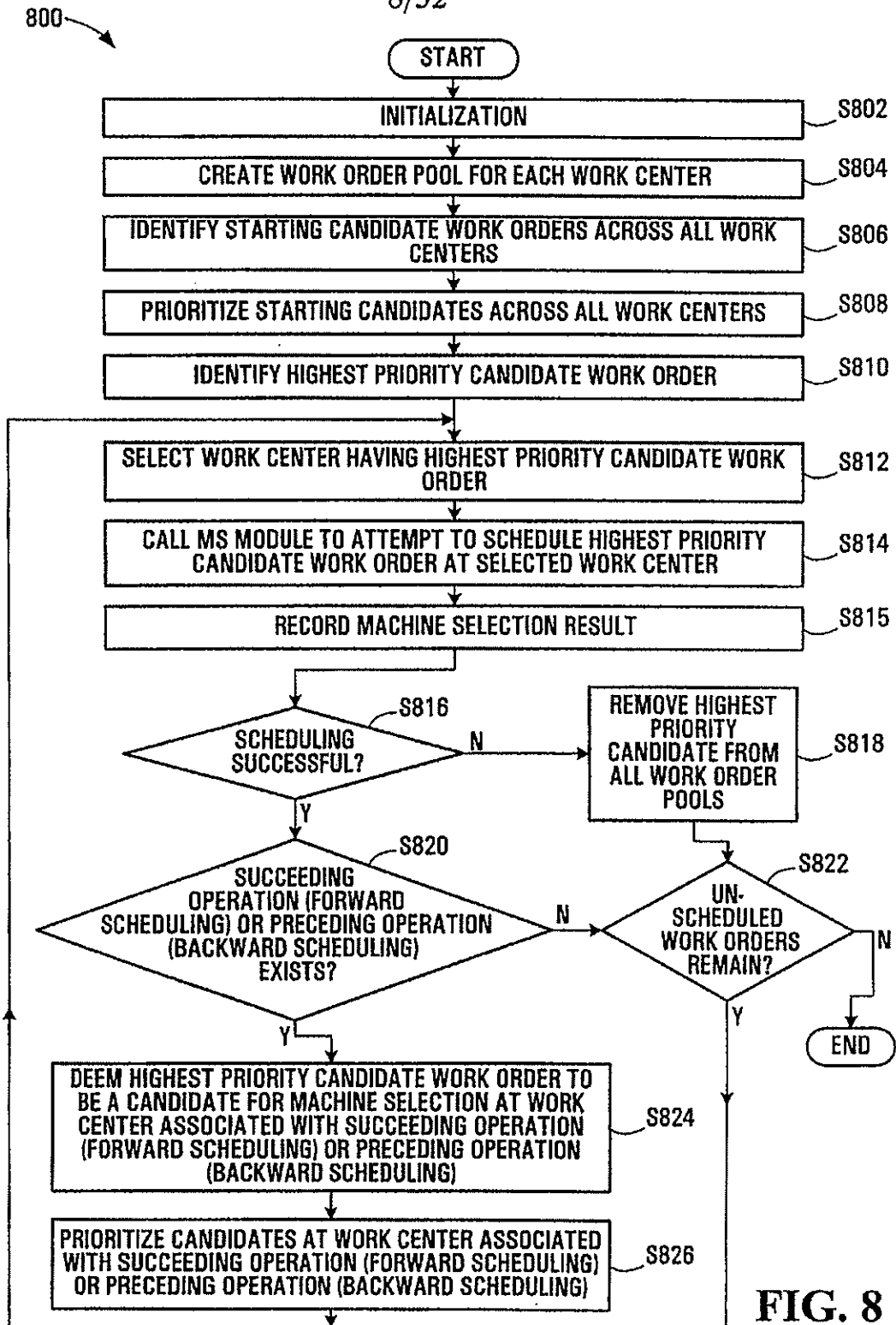
700
↙

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SCHEDULE BY MACHINE					
USER ID: SSOP		START TIME: 24/10/2002 14:00			
WOTS: 1920		END TIME: 26/10/2002 24:00			
OPERATION: WIREBOND					
MACHINE	WO_#	QUANTITY	START TIME	END TIME	
WBEE002	W200243028200	3,840	24/10/2002 13:39	26/10/2002 02:43	
	W200243028210	1,793	26/10/2002 02:43	26/10/2002 06:30	
	W200243028203	2,000	25/10/2002 07:46	25/10/2002 20:01	
WBEE003	CHANGEOVER		25/10/2002 20:01	26/10/2002 21:31	
	W200243028205	1,409	25/10/2002 21:31	26/10/2002 06:30	
OPERATION: DIEATTACH					
DA05	W200243028201	4,200	24/10/2002 13:59	25/10/2002 14:05	
	CHANGEOVER		25/10/2002 14:05	25/10/2002 16:20	
	W200243028202	1,200	25/10/2002 16:20	26/10/2002 20:30	
DA07	W200243028204	2,000	24/10/2002 12:00	24/10/2002 20:01	
	W200243028206	3,500	24/10/2002 20:01	26/10/2002 12:30	
	CHANGEOVER				

FIG. 7

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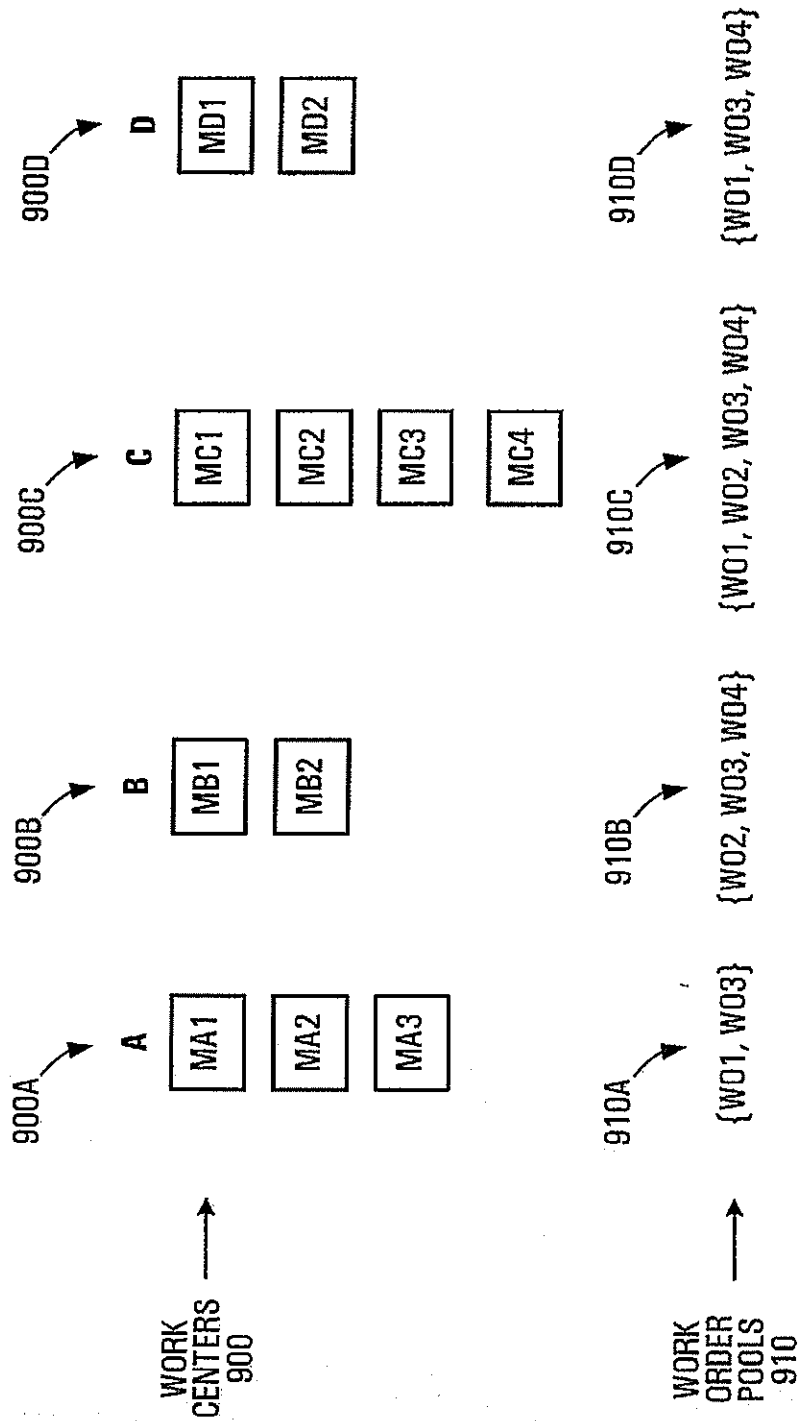


FIG. 9A

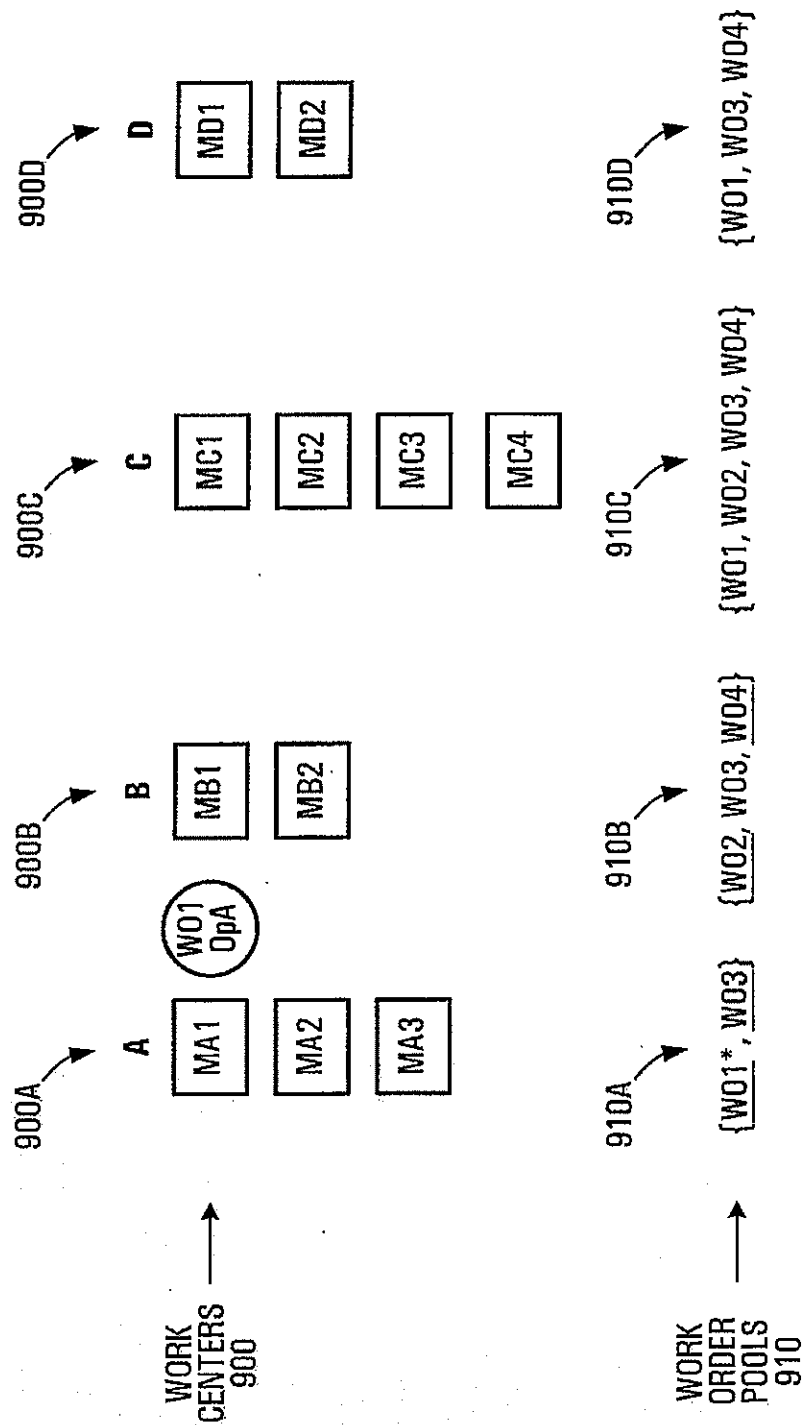


FIG. 9B

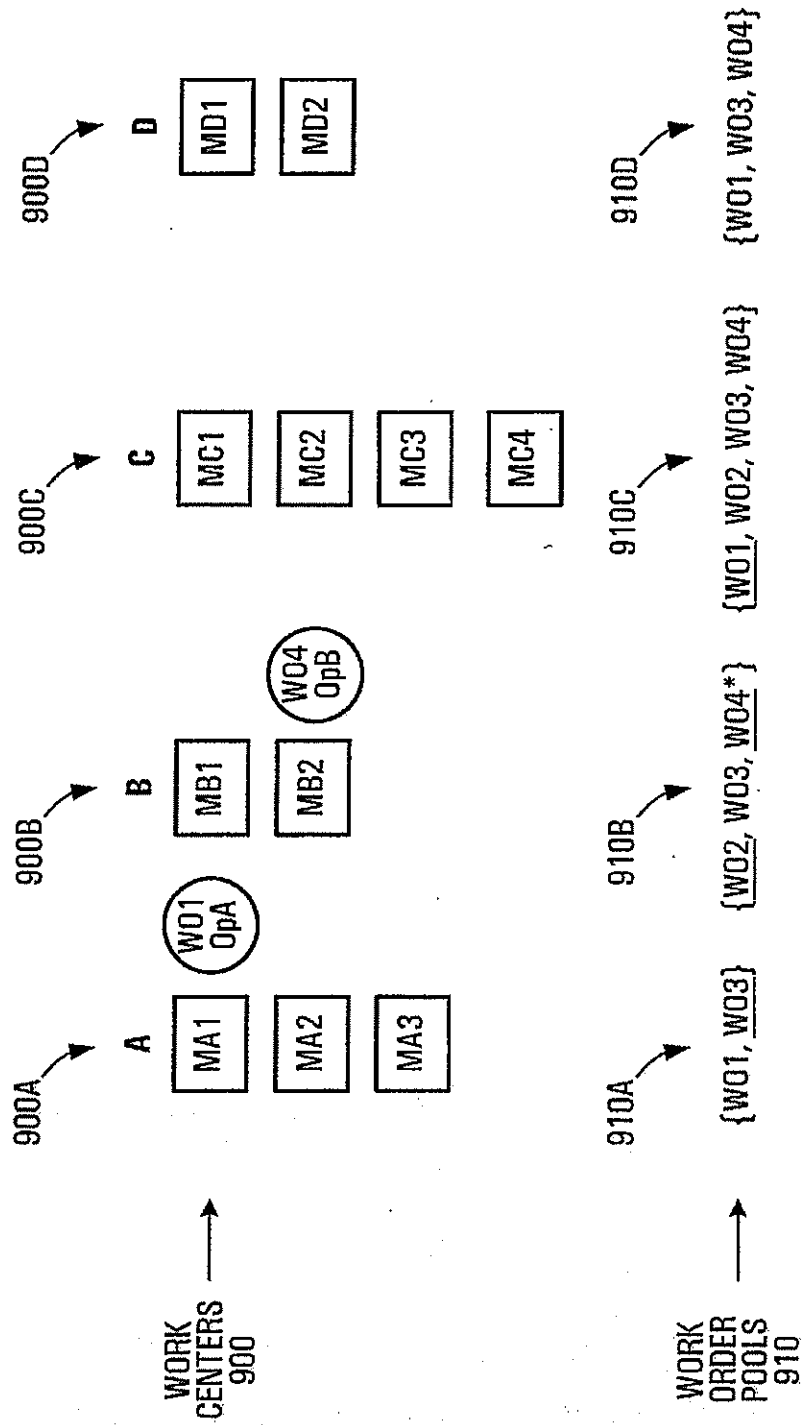


FIG. 9C

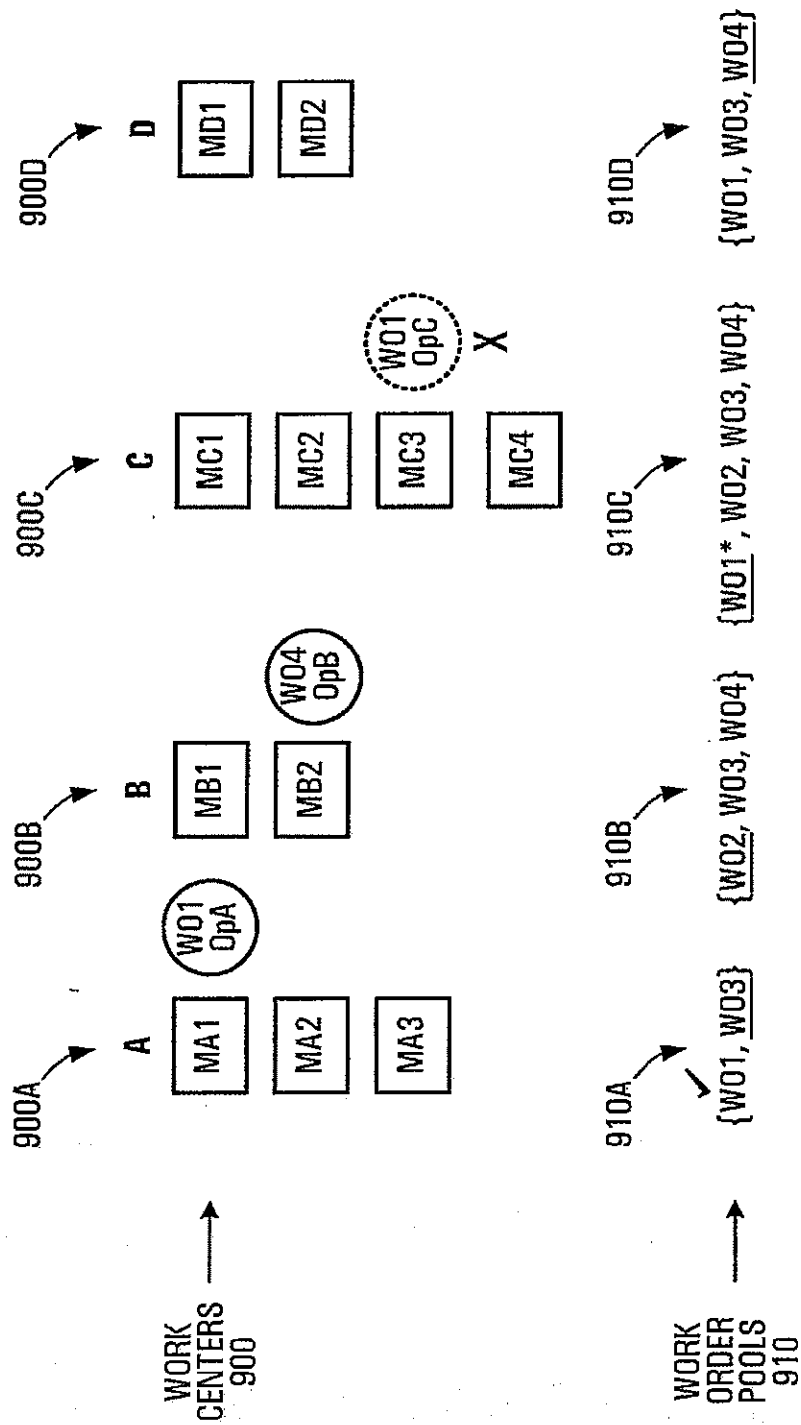


FIG. 9D

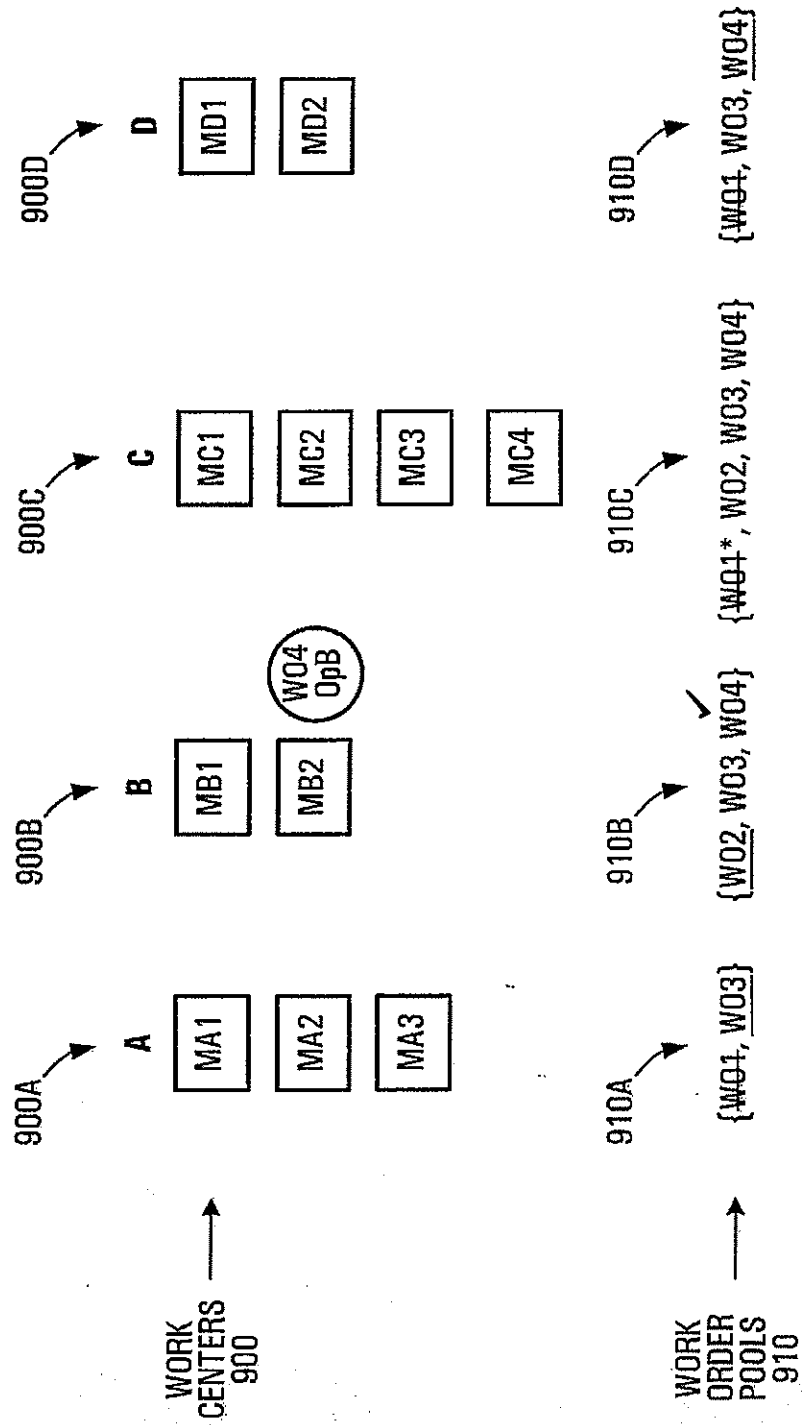


FIG. 9E

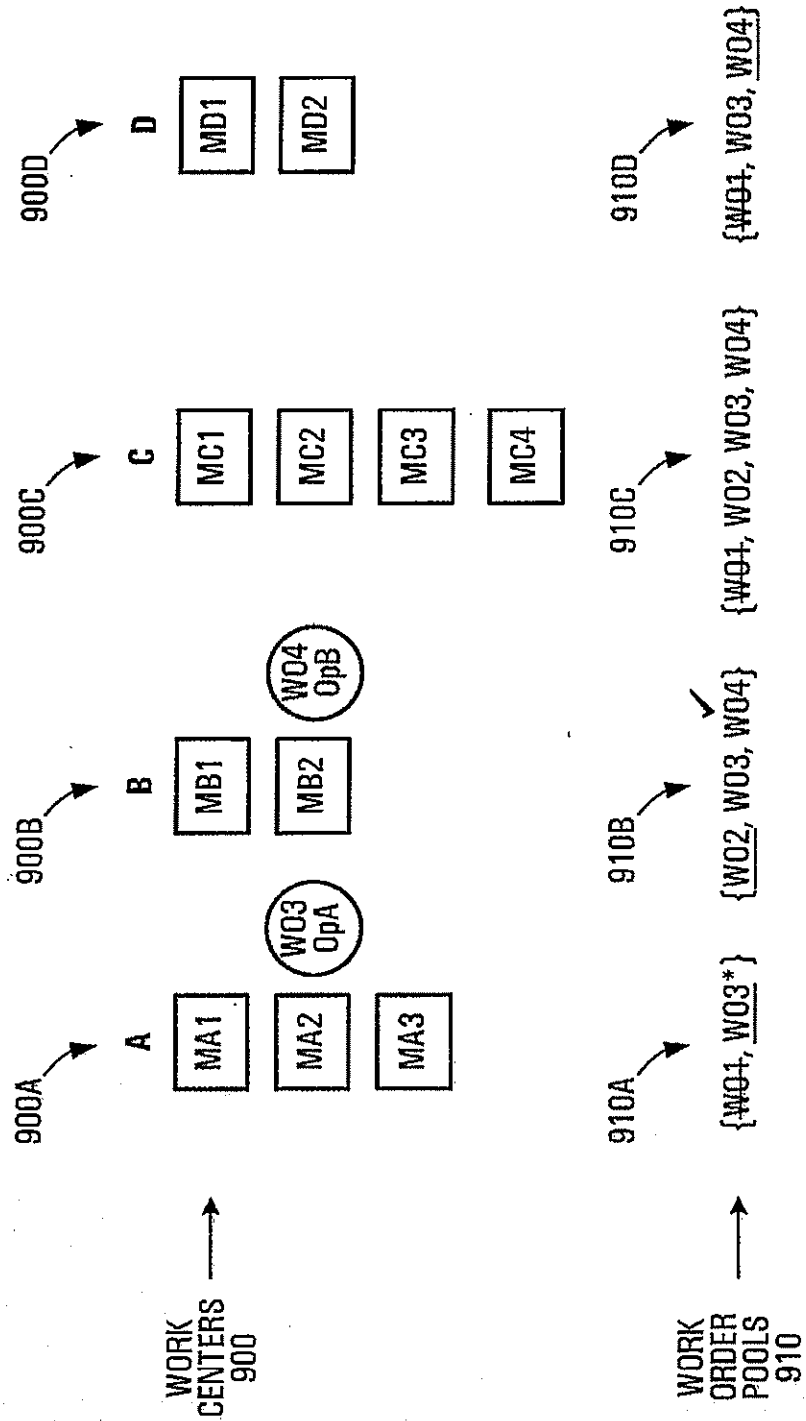


FIG. 9F

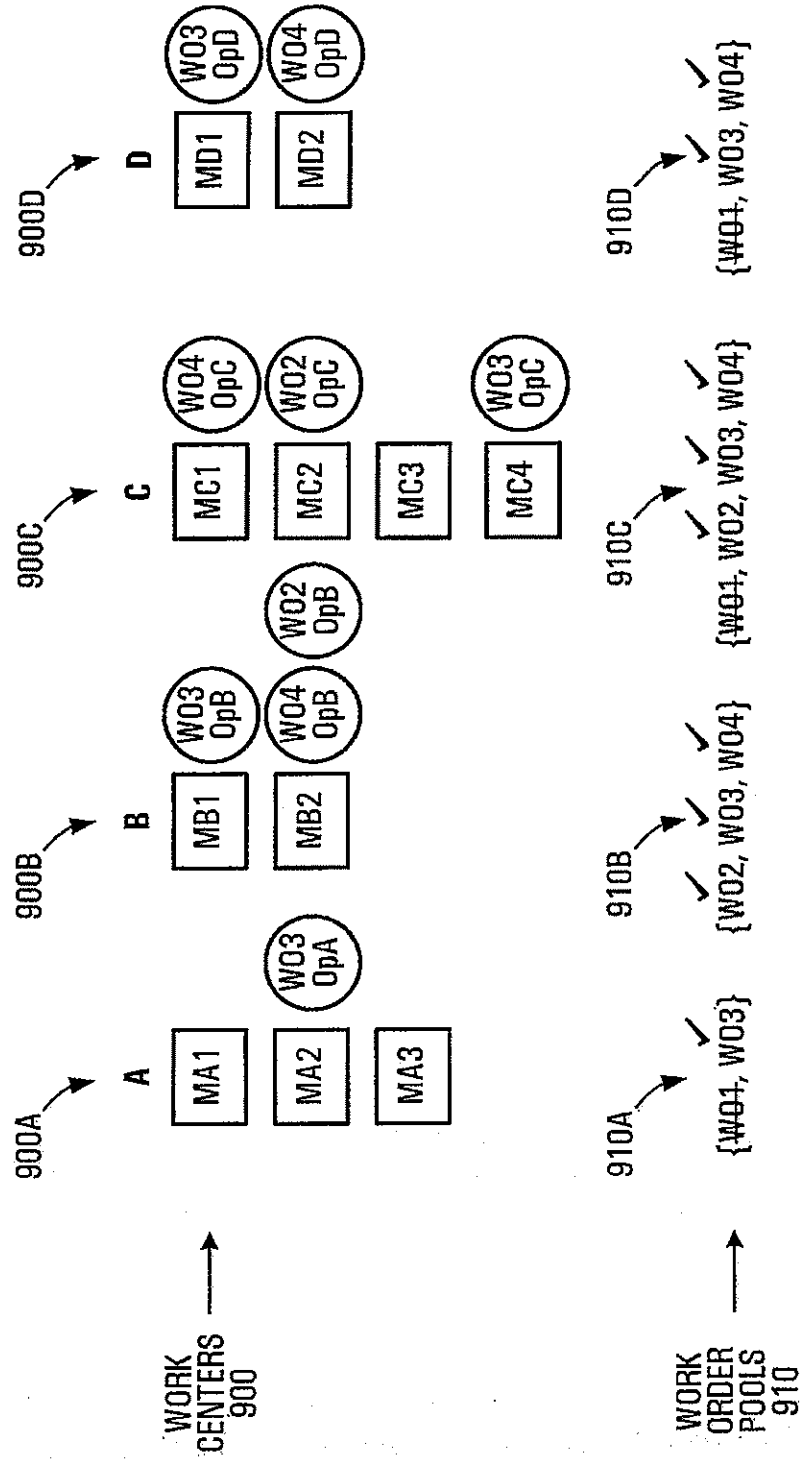


FIG. 9G

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1000

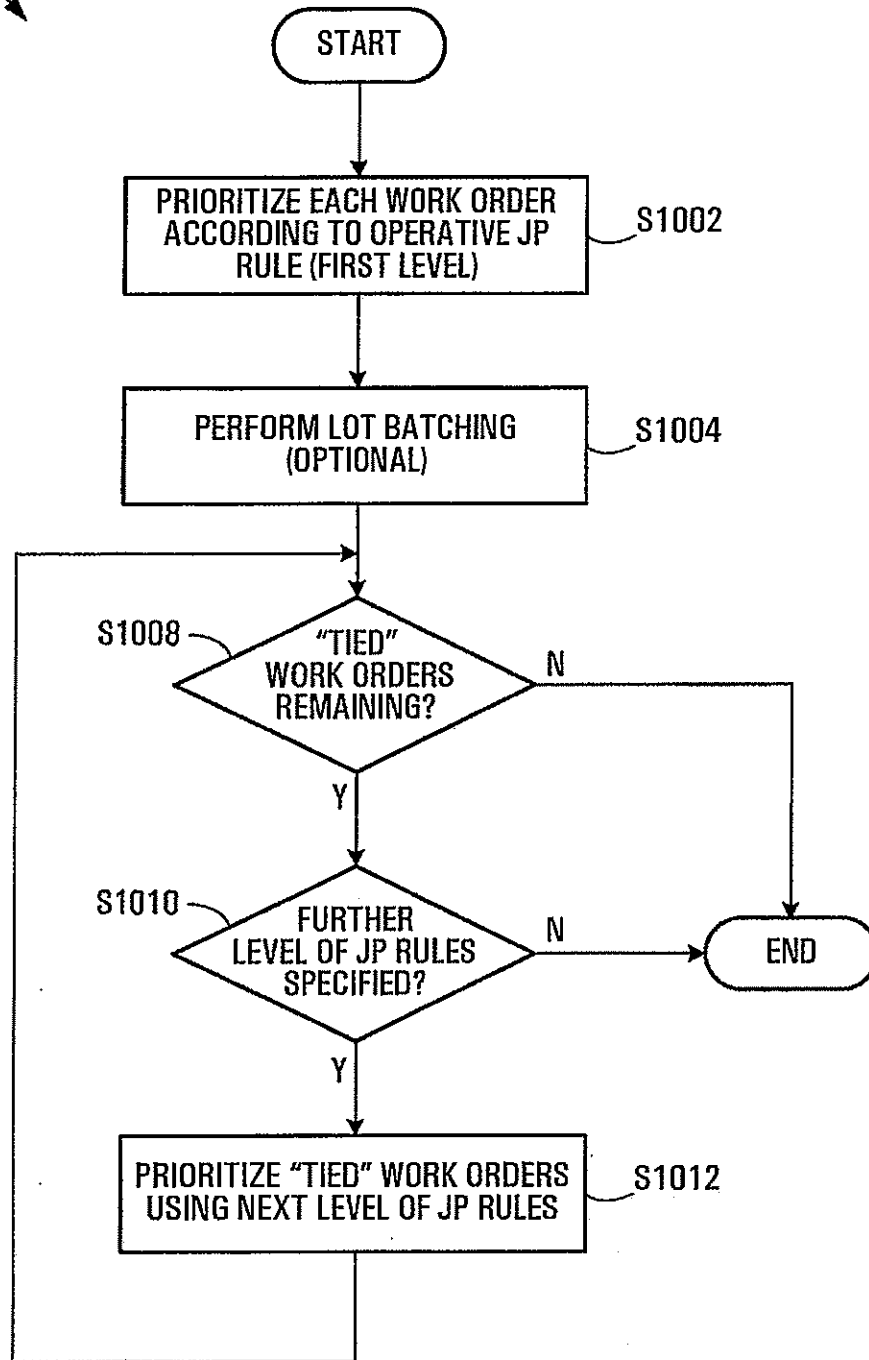


FIG. 10

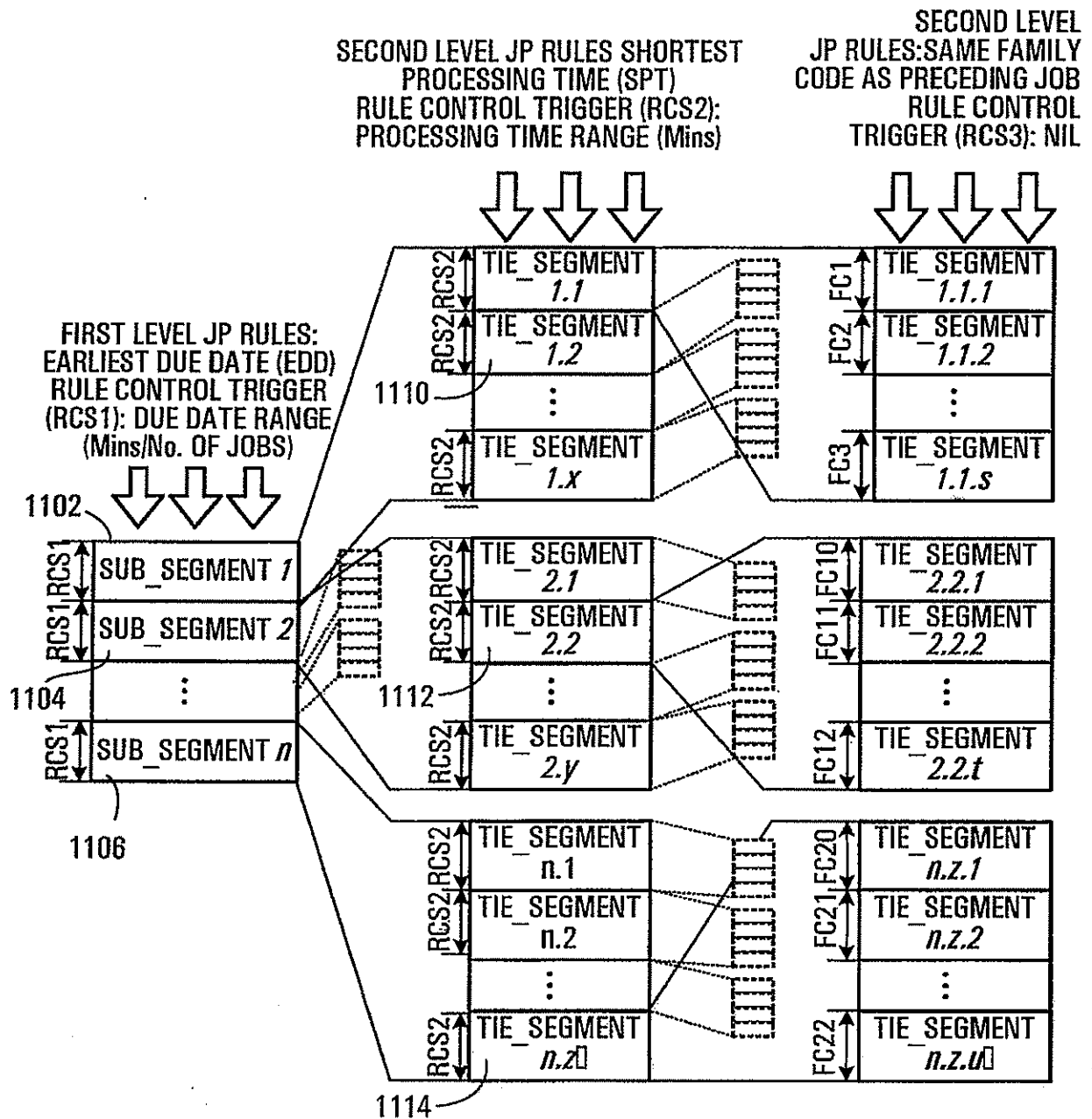


FIG. 11

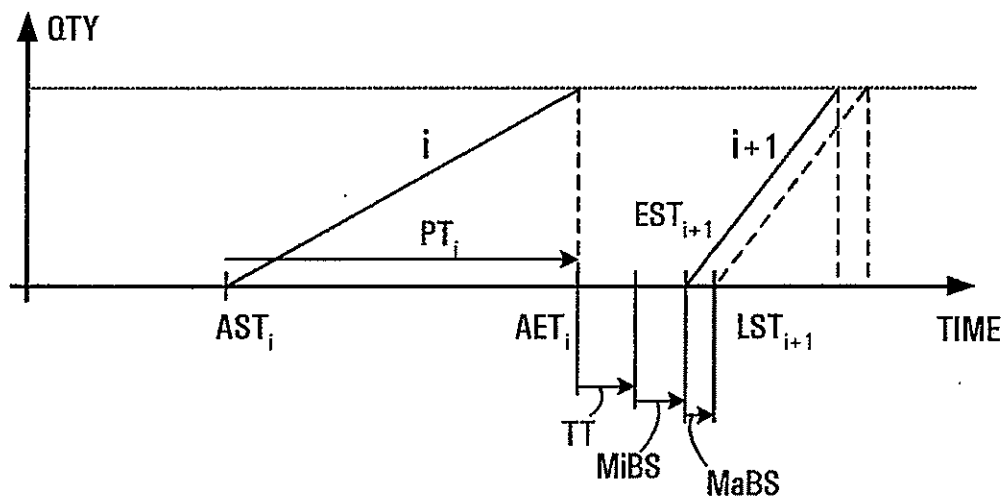


FIG. 12

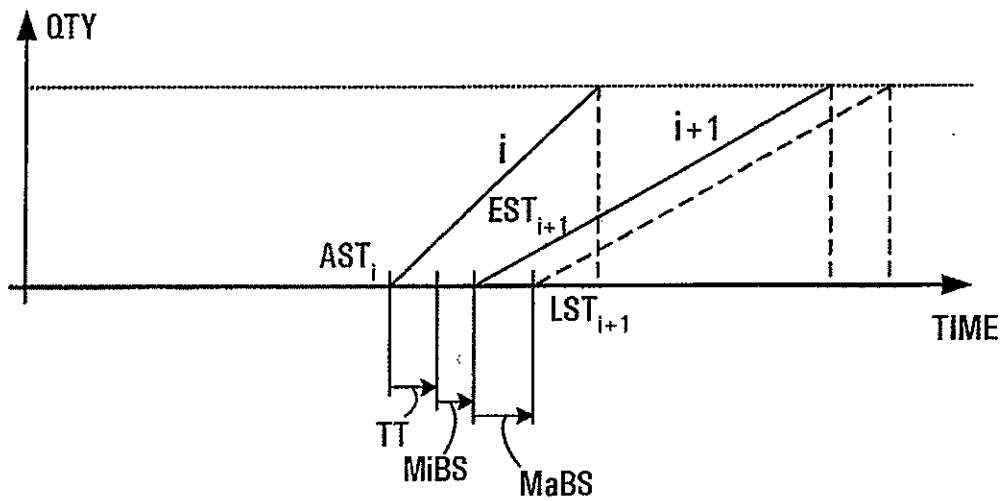


FIG. 13A

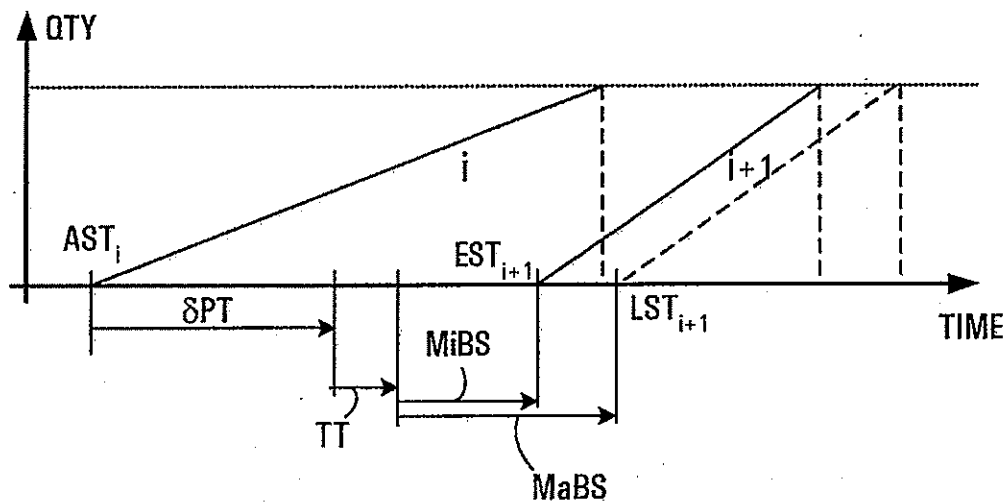


FIG. 13B

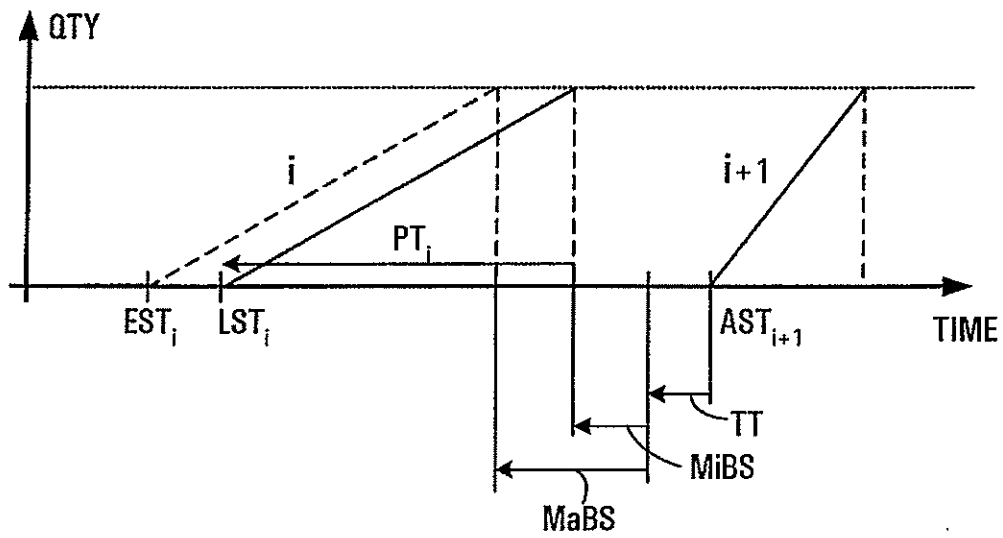


FIG. 14

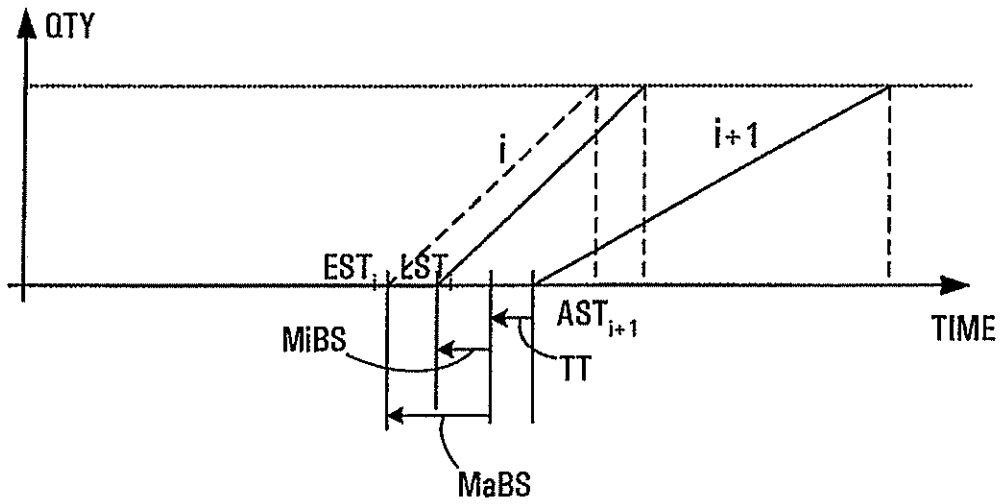


FIG. 15A

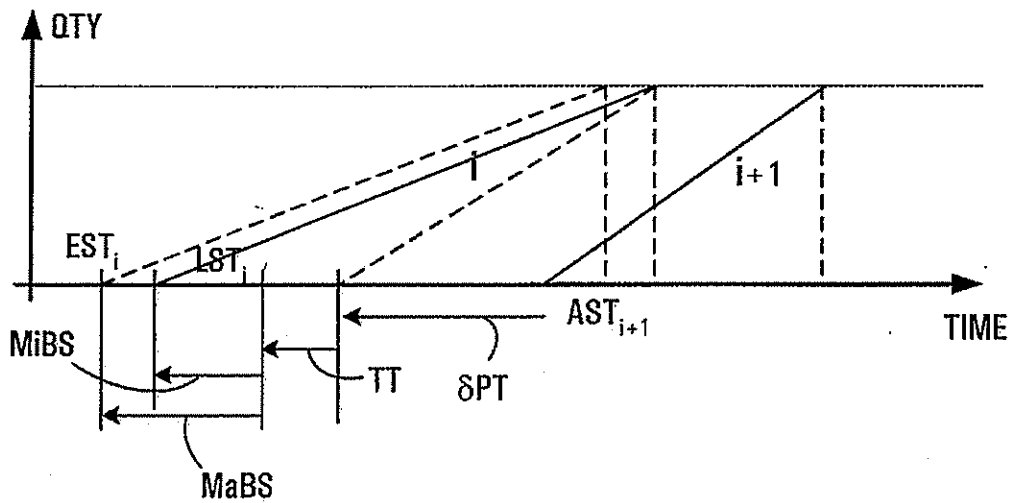


FIG. 15B

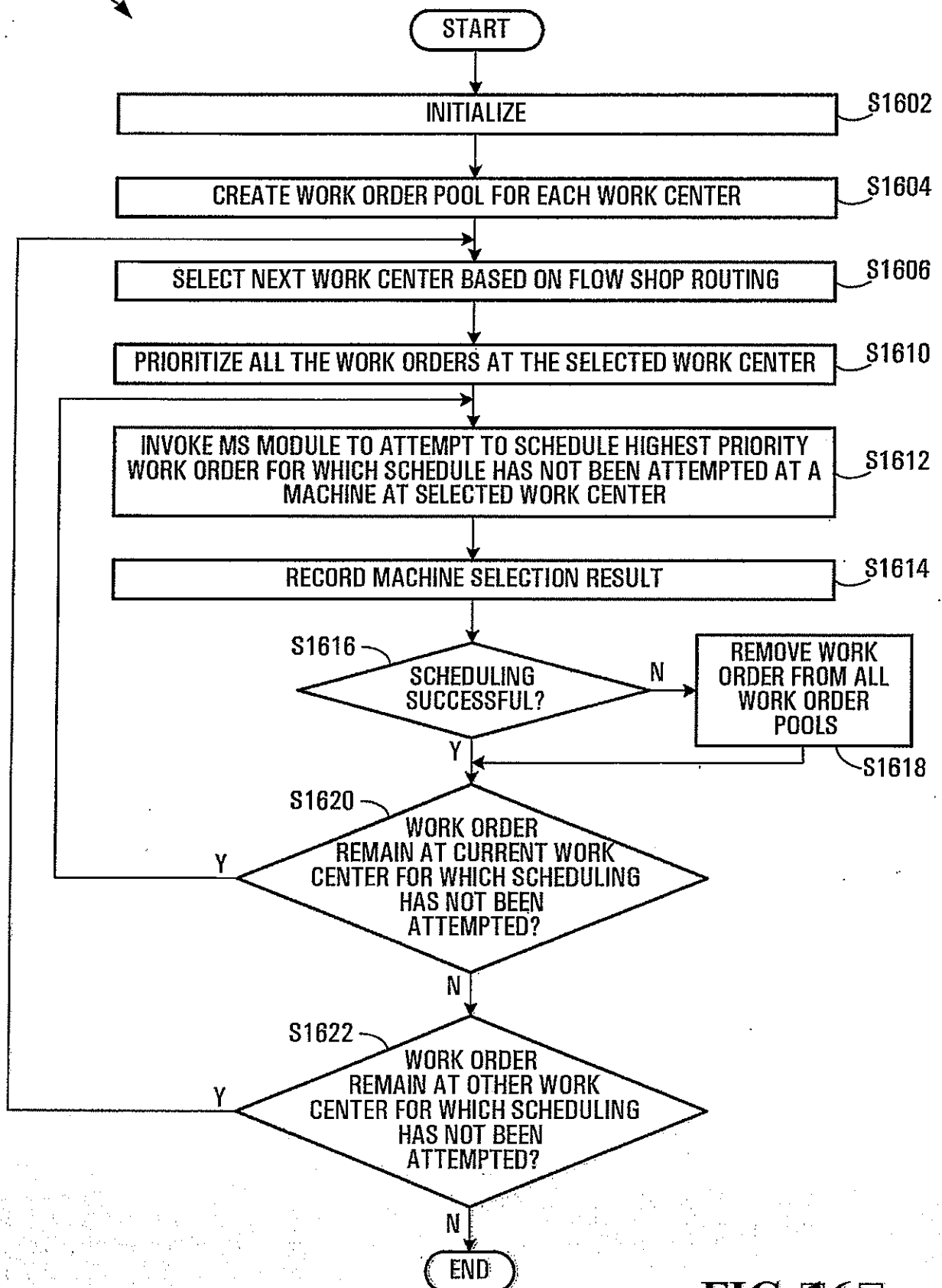


FIG. 16

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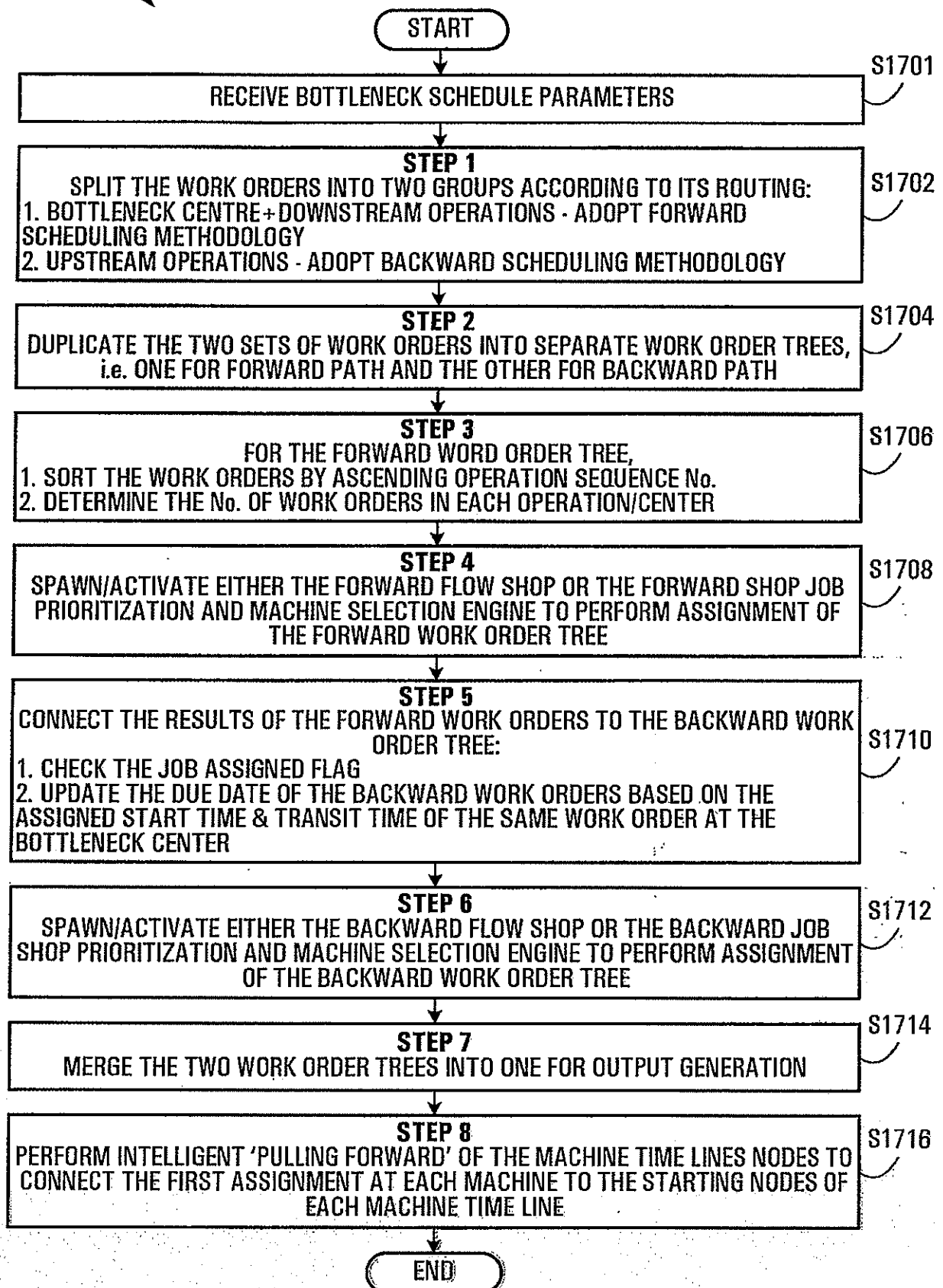


FIG. 17

+

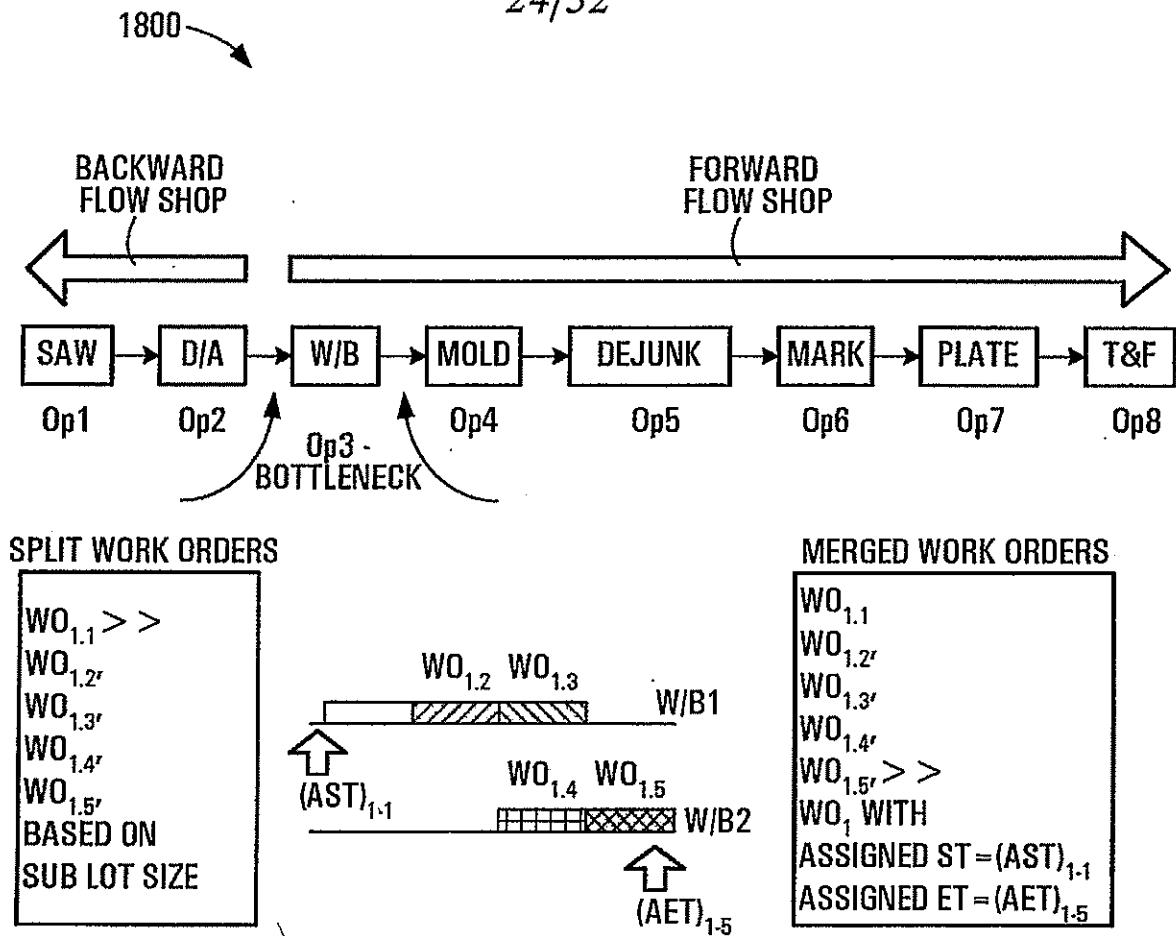


FIG. 18

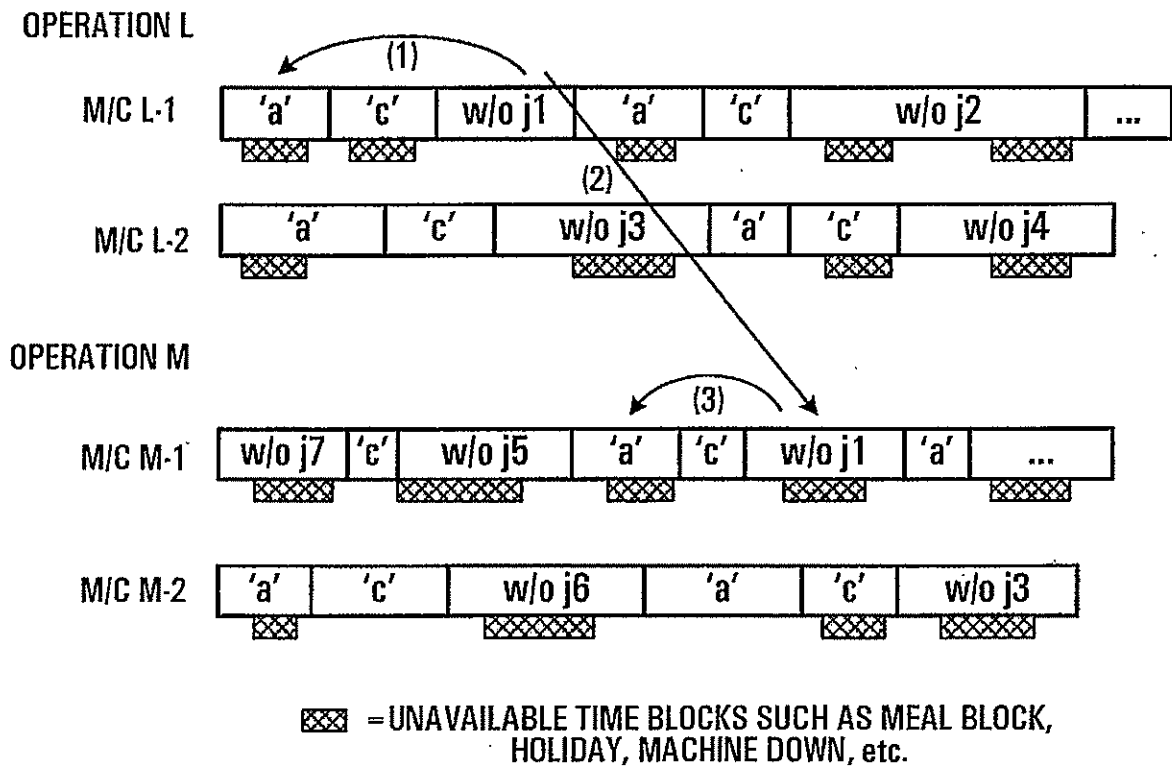
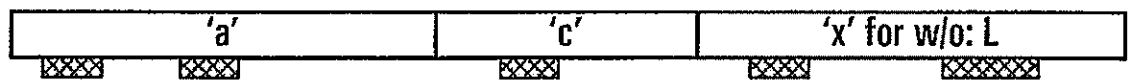
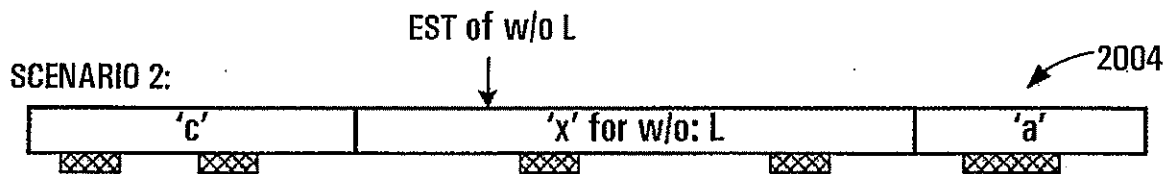
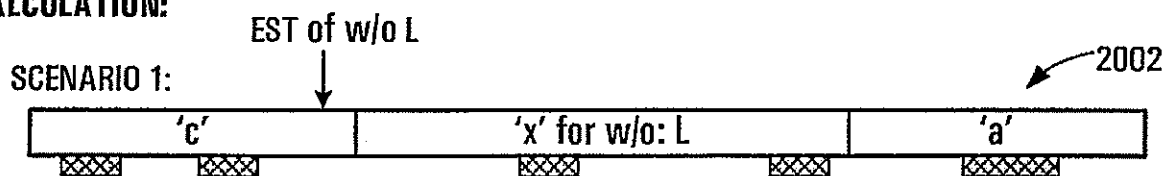


FIG. 19

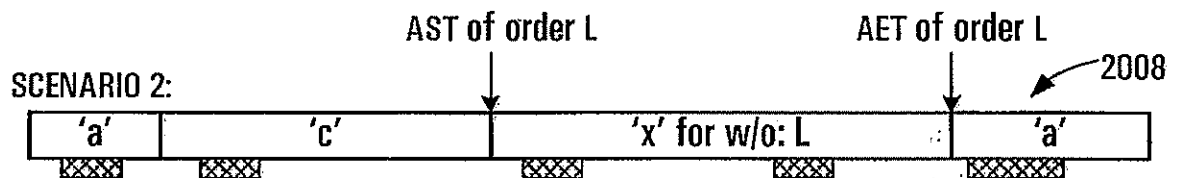
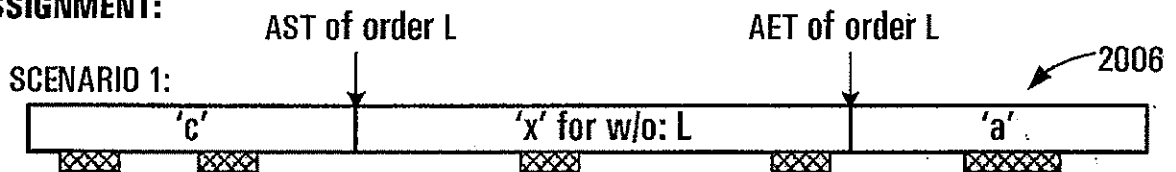
INITIAL STATUS:



CALCULATION:



ASSIGNMENT:



 =UNAVAILABLE TIME BLOCKS SUCH AS MEAL BLOCK, HOLIDAY, MACHINE DOWN, etc.

FIG. 20

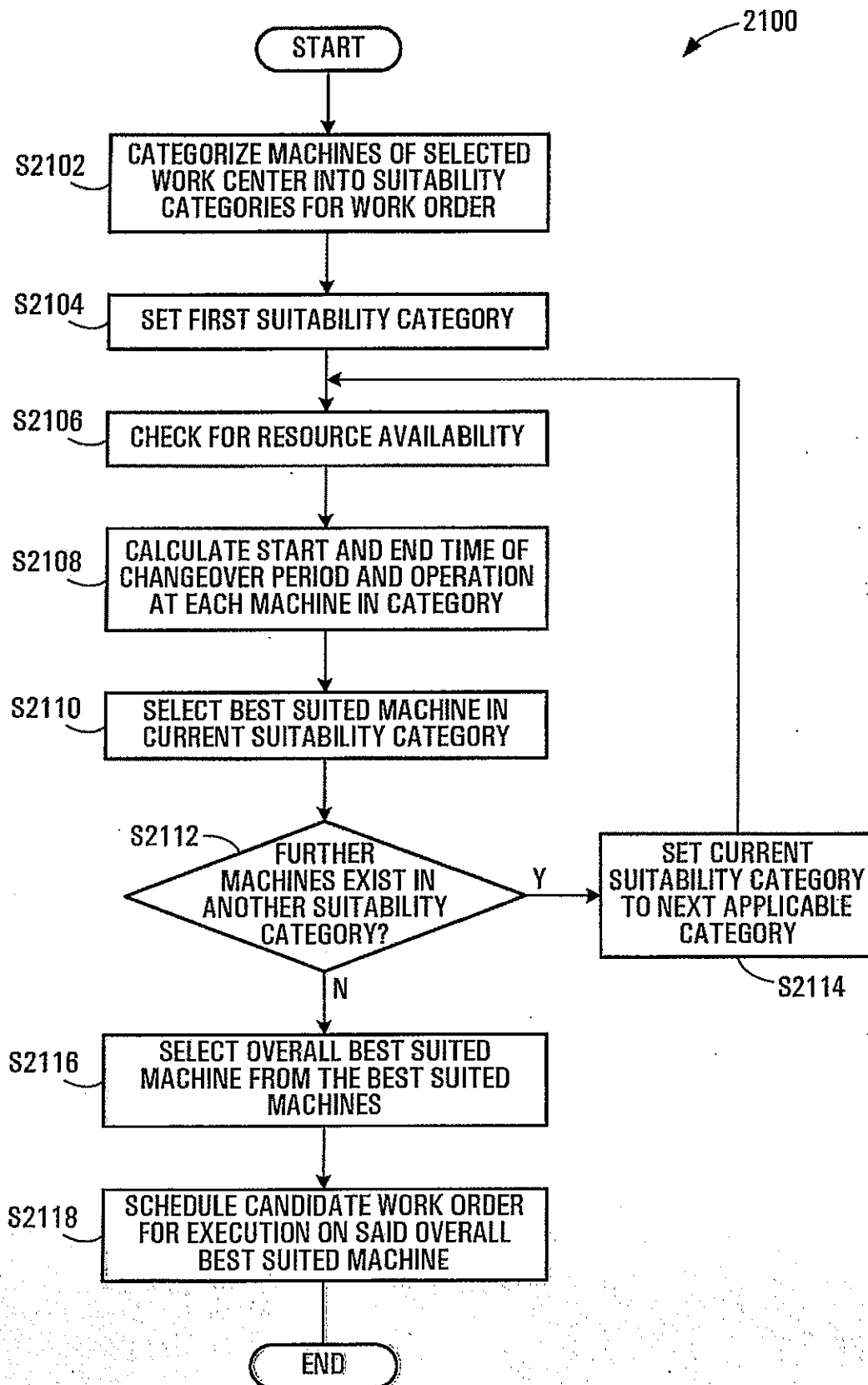


FIG. 21

+

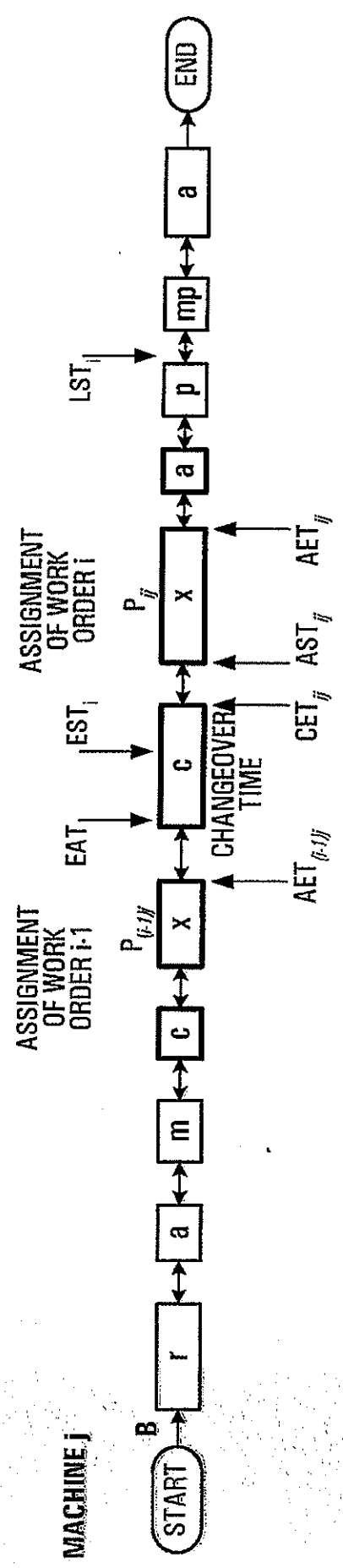


FIG. 22A

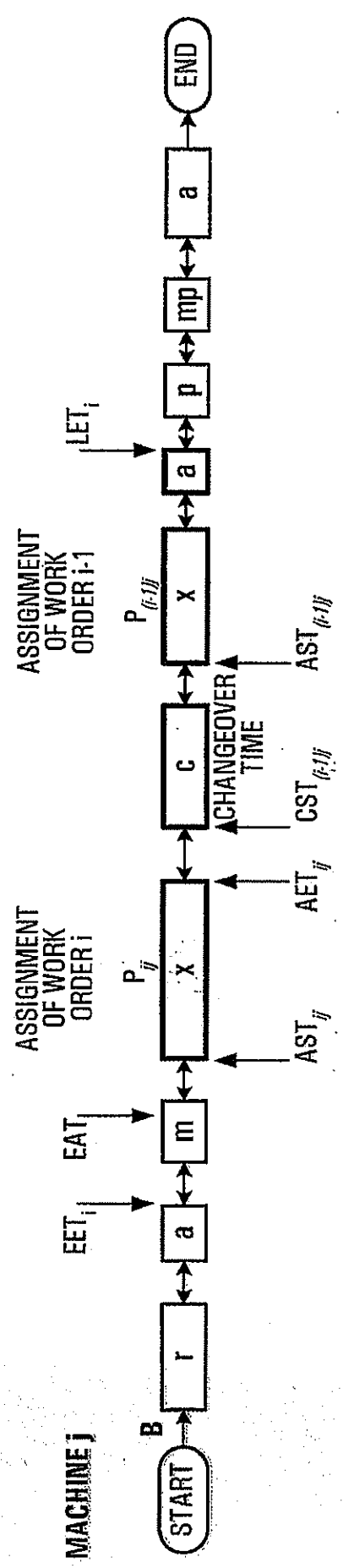


FIG. 22B

+

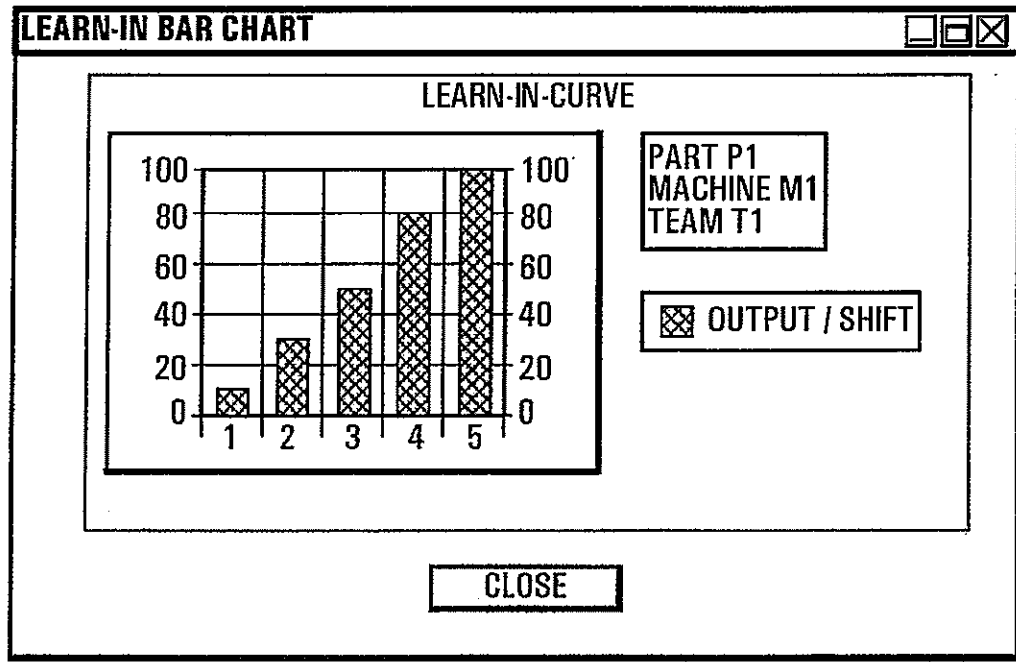


FIG. 23

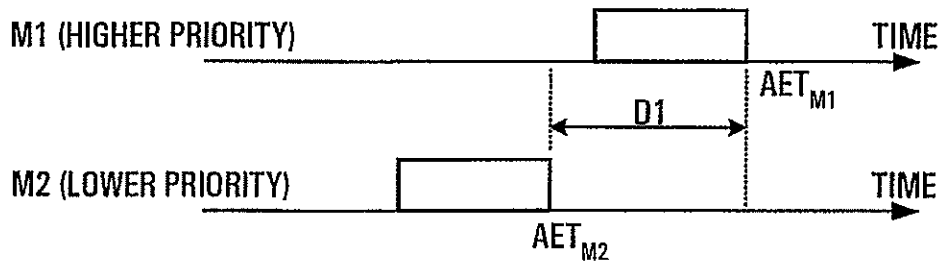
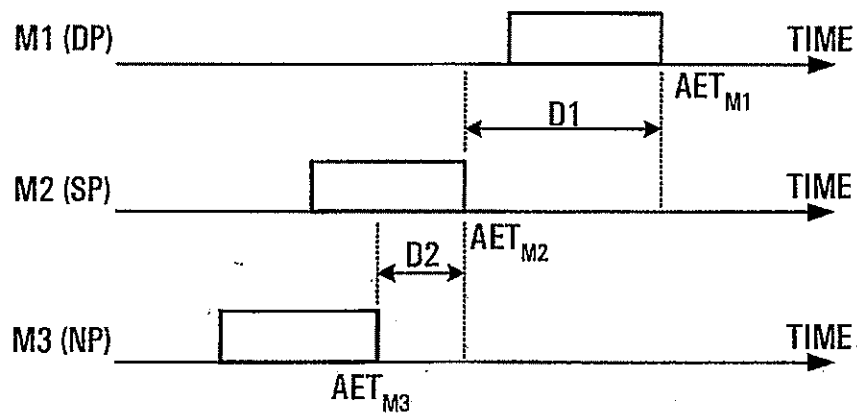


FIG. 24

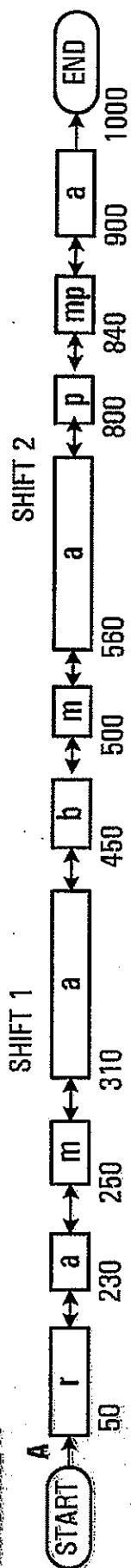


$$D1 = AET_{M1} - AET_{M2}$$

$$D2 = AET_{M2} - AET_{M3}$$

FIG. 25

MACHINE X



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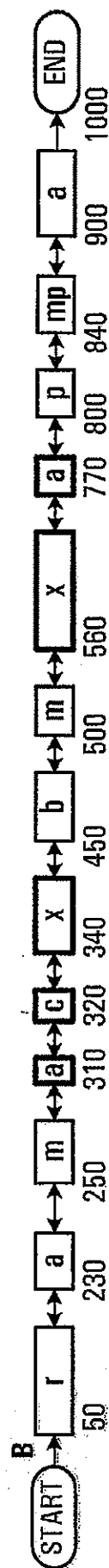
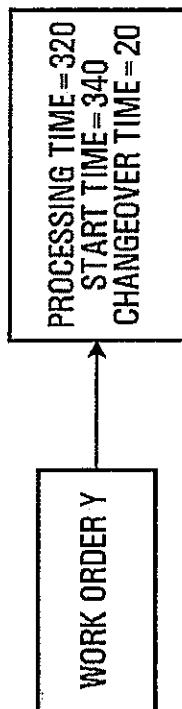


FIG. 26

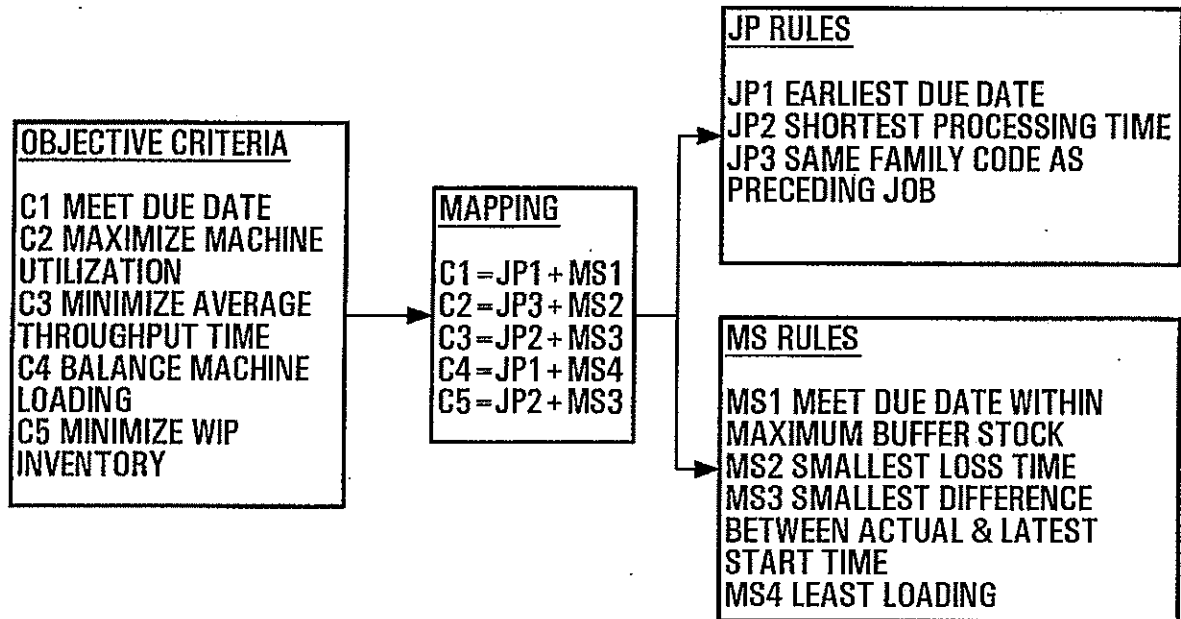


FIG. 27