$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 4) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_cather = 0) \land (A_balance_after_operation = 0) \land (A_bal$	$d_id = 0$) Λ (A_error = 0) Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_counter = 0)	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB	state = 0))) ATM_demande_pin_user	$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 5) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 0) \land (A_error = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0)$	Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_	_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 0)))	ATM_recoit_pin_user	$ (c_q0 \stackrel{\text{def}}{=} ((ATM_state = 6) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_card_id = 0) $	
$(c_q^2 = ((ATM_state = 8) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_calance_after_operation = 0)$	$d_id = 0$) Λ (A_error = 0) Λ (A_result = 1) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_counter = 0)	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 1) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB	state = 1))) DB_check_id	$(c_q^2) = ((ATM_state = 8) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 0) \land (A_balance_after_operation = 0) $	Λ (A_result = 1) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_	_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 1) Λ (DB_count_id = 0) Λ (DB_error = 1) Λ (DB_state = 5)))			
$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 7) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_cather = 0) \land (A_balance = 0) \land (A$	$d_id = 0$) Λ (A_error = 0) Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 5) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_counter = 0)	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB	ctate = 0)))	$(c_q5 \stackrel{\text{def}}{=} ((ATM_state = 0) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 0) \land (A_error = 0)$	Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_	_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 0)))			
$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 3) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_cather = 0) \land (A_balance = 0) \land (A$	$d_id = 0$) Λ (A_error = 0) Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 1) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_counter = 0)	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB	state = 0)))	$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 4) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 0) \land (A_balance_after_operation = 0) \land (A_balance_after_operat$	Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 2) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_	_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 0)))			
$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 7) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_candalance)$	$d_i = 0$ Λ (A_error = 1) Λ (A_result = -1) Λ (A_user_pin = 0) Λ (CARD_state = 3) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 2) Λ (C	C_user_pin = 1) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB	state = 1))) DB_check_id	$-$ (c_q0 $\stackrel{\text{def}}{=}$ ((ATM_state = 7) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 1) \land	$(A_result = -1) \land (A_user_pin = 0) \land (CARD_state = 3) \land (C_card_id = 0) \land (C_card_pin = 0) \land (C_counter = 2) \land (C_card_id = 0) \land (C_card_pin = 0$	C_user_pin = 1) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 2)))			
$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 2) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_balance_after_operat$	$A_{card_id} = 0$ Λ $A_{error} = 0$ Λ $A_{user_pin} = 0$ Λ $A_{card_id} = 0$ Λ $A_{card_id} = 12345$ Λ $A_{card_id} = 0$ Λ $A_{card} = $	_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state	0))) ATM_demande_id	$ Arr$ (c_q2 $\stackrel{\text{def}}{=}$ ((ATM_state = 8) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_e	ror = 0) Λ (A_result = 1) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_counter = 0) Λ (C_user_pin = 0)	= 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 0)))			
$(c_q^2) = ((ATM_state = 8) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_care)$	$A_i = 0$ Λ (A_error = 0) Λ (A_result = 1) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 22) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_counter = 0)	C_user_pin = 0) \(\Lambda \) (DB_asked_withdrawal = 0) \(\Lambda \) (DB_balance = 0) \(\Lambda \) (DB_card_id = 0) \(\Lambda \) (DB_count_id = 0) \(\Lambda \) (DB_error = 0) \(\Lambda \) (DB_card_id = 0)	state = 0))) ATM_traite_reponse_pin	$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 5) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 0) \land (A_balance_after_operation = 0) \land (A_balance_after_operat$	$(A_result = 1) \land (A_user_pin = 0) \land (CARD_state = 0) \land (C_card_id = 22) \land (C_card_pin = 0) \land (C_counter = 0) \land (C_card_id = 22) \land (C_card_pin = 0) \land (C_card_pin = $	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 0)))			
$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 6) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_cather = 0) \land (A_balance = 0) \land (A$	$d_i d = 0$) Λ (A_error = 0) Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 2) Λ (C_card_i d = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_counter = 0)	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB	state = 0))) ATM_transfer_pin_user	$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 7) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 0) \land (A_balance_after_operation = 0) \land (A_balance_after_operat$	Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 3) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_	_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 0)))	CARD_traite_pin	$ \bullet (c_q0 \triangleq ((ATM_state = 7) Λ (A_asked_withdrawal = 0) Λ (A_balance_after_operation = 0) Λ (A_card_id = 0) Λ (A_card_id = 0) Λ (A_card_id = 0) Λ (A_card_id = 0) Λ (C_card_id = 0) Λ (C_$	CARD_succes_pin (c_q2 $\stackrel{\text{def}}{=}$ ((ATM_state = 8) Λ (A_asked_withdrawal = 0) Λ (A_balance = 0) Λ (C_ard_id = 0) Λ (C_ard_id = 0) Λ (C_ard_id = 0) Λ (C_ard_id = 0) Λ (DB_asked_withdrawal = 0) Λ (D
$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 9) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_cather = 0) \land (A_balance = 0) \land (A$	$d_id = 0$) Λ (A_error = 0) Λ (A_result = 1) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_counter = 0)	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB	state = 5))) DB_operation_not_done	$(c_q5 \stackrel{\text{def}}{=} ((ATM_state = 0) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 0) \land (A_balance_after_operation = 0) \land (A_balance_after_operat$	Λ (A_result = 1) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_	_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 0)))			
$(c_q0 \stackrel{\text{\tiny def}}{=} ((ATM_state = 2) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_after_operation = 0) \land (A_$	$iid = 0$) Λ (A_error = 0) Λ (A_result = 1) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 12344) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ	$(C_user_pin = 0) \land (DB_asked_withdrawal = 0) \land (DB_balance = 0) \land (DB_card_id = 0) \land (DB_count_id = 0) \land (DB_error = 0) \land (DB_asked_withdrawal = 0) \land (DB_asked_withdraw$	B_state = 1))) ATM_demande_id	$(c_q0 \stackrel{\text{\tiny def}}{=} ((ATM_state = 3) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 0) \land (A_balance = 0) \land ($	A_result = 1) Λ (A_user_pin = 0) Λ (CARD_state = 1) Λ (C_card_id = 12344) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_sounter = 0)	(C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 1)))			
$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 7) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_cather = 0) \land (A_balance = 0) \land (A$	$d_id = 0$) Λ (A_error = 0) Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 5) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_counter = 0)	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB	state = 1)))	$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 0) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_balance_after_operation = 0) \land (A_ba$	$\Lambda (A_result = 0) \Lambda (A_user_pin = 0) \Lambda (CARD_state = 0) \Lambda (C_card_id = 0) \Lambda (C_card_pin = 0) \Lambda (C_counter = 0) \Lambda (C_card_pin = 0)$	_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 1)))	ATM_signal_connexion		
$(c_q4 \stackrel{\text{def}}{=} ((ATM_state = 0) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_care)$	$_{id} = 0$) Λ (A_error = 1) Λ (A_result = 24) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 23) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_counter = 0)	$(C_user_pin = 0) \land (DB_asked_withdrawal = 0) \land (DB_balance = 0) \land (DB_card_id = 0) \land (DB_count_id = 0) \land (DB_error = 0) \land (DB_asked_withdrawal = 0) \land (DB_asked_withdraw$	_state = 0))) ATM_signal_connexion	\bullet (c_q0 $\stackrel{\text{def}}{=}$ ((ATM_state = 1) \land (A_asked_withdrawal = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 1) \land	$(A_result = 24) \land (A_user_pin = 0) \land (CARD_state = 0) \land (C_card_id = 23) \land (C_card_pin = 0) \land (C_counter = 0) \land (C_card_id = 23) \land (C_card_pin = 0) \land (C_card_pin =$	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 0)))			
$(c_q0 \stackrel{\text{\tiny def}}{=} ((ATM_state = 8) \land (A_asked_withdrawal = 0) \land (A_balance = 5000) \land (A_balance_after_operation = 0) \land (A_cather = 5000) \land (A_balance_after_operation = 0) \land (A$	$d_id = 0$) Λ (A_error = 1) Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 1) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 5000) Λ (DB_card_id = 1) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ	OB_state = 0))) ATM_traite_reponse_pin ($(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 5) \land (A_asked_withdrawal = 0) \land (A_balance = 5000) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 1)$	Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 1) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_	_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 5000) Λ (DB_card_id = 1) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 0)))			
$(c, a) \stackrel{\text{def}}{=} ((\Lambda TM, \text{state} - 2) \Lambda (\Lambda, \text{asked, withdrawal} - 0) \Lambda (\Lambda, \text{balance, after, aperation} - 0) \Lambda (\Lambda, \text{card})$	$d = 0$) Λ (A_error = 0) Λ (A_result = -1) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 12345) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ	(C user pin = 0) A (DR asked withdrawal = 0) A (DR balance = 0) A (DR card id = 0) A (DR count id = 0) A (DR error = 0) A (ATM_demande_id	$(c_q4 \stackrel{\text{def}}{=} ((ATM_state = 0) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0)$	$ \Lambda \ (A_error = 1) \ \Lambda \ (A_user_pin = 0) \ \Lambda \ (C_ARD_state = 0) \ \Lambda \ (C_card_pin = 0) \ \Lambda \ (C_counter = 0) \ \Lambda \ (C_user_pin = 0) \$	$\Delta DB_asked_withdrawal = 0$) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 0)))			
(c_qo = ((ATM_state = 2) N (A_asked_withdrawar = 0) N (A_barance = 0) N (A_barance_arter_operation = 0) N (A_card_	u = 0) N (A_choi = 0) N (A_tesuit = -1) N (A_user_pin = 0) N (CARD_state = 0) N (C_card_iu = 125+5) N (C_card_pin = 0) N (C_counter = 0) N	(C_uscr_piii = 0) \((DD_asked_withdrawar = 0) \(\text{(DD_barance = 0) \(\text{(DD_card_id = 0) \(\text{(DD_count_id = 0) \) \(\text{(DD_count_id = 0) \(\text{(DD_count_id = 0) \) \(\text{(DD_count_id = 0) \) \(\text{(DD_count_id = 0) \(\text{(DD_count_id = 0) \) \\ \ext{(DD_count_id = 0) \) \(\text{(DD_count_id = 0) \) \\ \ext{(DD_count_id = 0) \) \(\text{(DD_count_id = 0) \) \\ \ext{(DD_count_id = 0) \\ \ext{(DD_count_id = 0) \) \\ \ext{(DD_count_id = 0) \\ \ext{(DD_count_id	ATM_demande_id	$(c_q5 \stackrel{\text{def}}{=} ((ATM_state = 0) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0)$	$ \Lambda \ (A_error = 0) \ \Lambda \ (A_user_pin = 0) \ \Lambda \ (C_ard_pin = 0) \ \Lambda \ (C_counter = 0) \ \Lambda \ (C_user_pin = 0) \ \Lambda$	$DB_asked_withdrawal = 0$) Λ $DB_balance = 0$) Λ $DB_card_id = 0$)			
$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 12) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_cate)$	$rd_id = 0$) Λ (A_error = 0) Λ (A_result = 1) Λ (A_user_pin = 0) Λ (CARD_state = 1) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_counter = 0)	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB	state = 3))) ATM_traite_retrait	$-$ (c_q0 $\stackrel{\text{def}}{=}$ ((ATM_state = 13) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 0)	Λ (A_result = 1) Λ (A_user_pin = 0) Λ (CARD_state = 1) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_sard_pin = 0)	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 4)))	DB_traitement_ok		
$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 9) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_calance_after_operation = 0) \land (A_balance_after_operation = 0) \land (A_balance_after_operat$	$d_id = 0$) Λ (A_error = 0) Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_counter = 0)	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB	state = 2))) DB_demande_retrait	$-$ (c_q0 $\stackrel{\text{def}}{=}$ ((ATM_state = 10) \land (A_asked_withdrawal = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 0)	Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_sard_pin = 0)	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 3)))			
$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 10) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_cate)$	$rd_id = 0$) Λ (A_error = 0) Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_counter = 0)	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB	state = 0))) ATM_demande_retrait	$-$ (c_q0 $\stackrel{\text{def}}{=}$ ((ATM_state = 11) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_card_id = 0) \land (A_error = 0)	Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_sounter = 0)	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB_state = 0)))	ATM_obtient_montant	$ \leftarrow (c_q0 = ((ATM_state = 12) \land (A_asked_withdrawal = 0) \land (A_asked_withdr$	
$(c_q0 \stackrel{\text{def}}{=} ((ATM_state = 13) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_cate)$	$rd_id = 0$) Λ (A_error = 1) Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 0) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C_counter = 0)	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB	•	(c. $\alpha 4^{\frac{def}{def}}$ ((ATM state = 0) Λ (A asked withdrawal = 0) Λ (A balance after operation = 0) Λ (A card id = 0) Λ (A error = 1)	$(A \text{ result} - 0) \land (A \text{ user pin} - 0) \land (CARD \text{ state} - 0) \land (C \text{ card id} - 0) \land (C \text{ card pin} - 0) \land (C \text{ counter} - 0) \land (C \text{ counter} - 0) \land (C \text{ card pin} - 0) \land (C \text{ counter} - 0) \land (C \text{ card pin} - 0) \land (C \text{ counter} - 0) \land (C \text{ card pin} - 0) \land (C \text$	user pin = 0) A (DR asked withdrawal = 0) A (DR balance = 0) A (DR card id = 0) A (DR count id = 0) A (DR error = 0) A (DR state = 0)))			
$(c_q0 \stackrel{\text{\tiny def}}{=} ((ATM_state = 7) \land (A_asked_withdrawal = 0) \land (A_balance = 0) \land (A_balance_after_operation = 0) \land (A_cate)$	$d_id = 0$) Λ (A_error = 1) Λ (A_result = 0) Λ (A_user_pin = 0) Λ (CARD_state = 5) Λ (C_card_id = 0) Λ (C_card_pin = 0) Λ (C_counter = 0) Λ (C	C_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 0) Λ (DB_card_id = 0) Λ (DB_count_id = 0) Λ (DB_error = 0) Λ (DB	carpin state = 0)))		(11000)				
			► (c_q	$_{q}$ 5 $\stackrel{\text{def}}{=}$ ((ATM_state = 0) Λ (A_asked_withdrawal = 0) Λ (A_balance = 0) Λ (A_balance_after_operation = 0) Λ (A_card_id = 0) Λ (A_error = 0) Λ (A_ror example 1)	sult = 0) \(\Lambda \) (A_user_pin = 0) \(\Lambda \) (CARD_state = 0) \(\Lambda \) (C_card_id = 3121) \(\Lambda \) (C_card_pin = 4040) \(\Lambda \) (C_counter = 0) \(\Lambda \) (C_	_user_pin = 0) Λ (DB_asked_withdrawal = 0) Λ (DB_balance = 7400) Λ (DB_card_id = 0) Λ (DB_count_id = 3121) Λ (DB_error = 0) Λ (DB_state = 0)	ATM_signal_connexion (c_q0	$q0 = ((ATM_state = 1) \land (A_asked_withdrawal = 0) \land (A_balance = 7400) $	ATM_operation_vide $(c_q0 = (ATM_state = 2) \land (A_asked_withdrawal = 0) \land (A_balance = 7400) $